

# THE JOURNAL OF THE Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XXVII

JULY, 1928

No. 7

## CONTENTS

	Page
The Diagnosis of Gastro-Intestinal Disease from a Good History. Walter C. Alvarez, M. D.	487
Two Types of Toxemia in Toxic Adenoma. E. P. Sloan, M. D.	440
High Forceps: Under Strict Indication Together with Remarks of a Non-Academic Nature on When to Do Caesarean Section for Pelvic Indication. Foster S. Kellogg, M. D.	443
Liver Function. C. W. Heald, M. D. and W. B. Lewis, B. S., M. D.	448
A Brief Survey of Thoracic Surgery. John Alexander, M. D.	451
Thymophysin in Obstetrics. L. W. Haynes, A. B., M. D., F. A. C. S.	456
Multiple Sebaceous Cysts of the Scrotum—Report of a Case. Hamilton Cooke, M. D.	458
Surgical Treatment of Hyperthyroidism. Clark D. Brooks, M. D.	459
Surgical Procedures in Carcinoma of the Large Bowel. Fred W. Rankin, M. D.	465
The Difficulties Sometimes Encountered in Differentiating Syphilis from Tuberculous Meningitis. James Clark Moloney, M. D.	468
Post-Encephalitic Syndrome. R. Grant Janes, M. D.	470
Peri-Tonsillar Abscess in Infants—Report of Case. Harry Baugess, A. B., M. D.	472
Focal Infection. J. G. R. Manwaring, M. D.	473
Michigan's Department of Health. Guy L. Kiefer, M. D.	475
EDITORIALS—	
The Post-Graduate Conference	480
Physicians as Legislators	480
Joslin's Ideals in Diabetic Treatment	481
Exit Quackery	481
Radiological Frauds	481
Peptic Ulcer	482
Medical Hobbies	483
Standardization of X-Ray Apparatus	484
Editorial Notes	485
"Medico, Social and Economics"	486
Our Open Forum	488
News and Announcements	489
Deaths—Doctors E. C. Van Syckle, George M. Waldeck, Charles Girard, Harry E. Shaver, Russell J. Collier, Charles W. Goff and M. F. Dockery	490
County Society Activity	491
Book Reviews and Miscellany	491
	501

## THE DIAGNOSIS OF GASTRO-INTESTINAL DISEASE FROM A GOOD HISTORY\*

WALTER C. ALVAREZ, M. D.  
(Division of Medicine, Mayo Clinic)  
ROCHESTER, MINN.

The trouble with the average history which is taken by a practicing physician or an interne is that it is short and superficial. It does not give a clear-cut consecutive story of everything of medical interest which has happened during the life of the patient. It may open up wonderful possibilities for further questioning, but these opportunities are not grasped. Thus, it may say in the history: "In 1910 and 1915 patient had ptomaine poisoning." Go more carefully into that and you may find that others who ate the same food were not ill. Ask a few more questions and you may get a story of typical attacks of gallstone colic. That will open your eyes to the fact that the belching and heart-burn, for the relief of which the patient is now consulting you, are mild symptoms of cholecystitis which has been flaring up off and on for many years.

### THE TAKING OF A HISTORY

*The principal complaint.* The first thing

to do in taking a history is to find out the principal complaint.

*The onset.* The next thing to do is to find out if the patient ever had a good digestion, and if so, just when it failed. That will give you a starting point, and incidentally a good many suggestions as to the possible diagnosis. Just suppose that a man of fifty-five comes in and says that he could digest tacks up until three months before, when everything seemed to go wrong. You can be almost certain that he has cancer of the stomach. A woman of forty-five comes in complaining of attacks of pain in the upper right abdominal quadrant with belching and bloating in the intervals. She can trace her troubles back to bilious spells and severe stomach-aches when she was a child. She has gall-bladder disease. A man with pain in the epigastrium, relieved by eating, says that he has had attacks off and on since he was twenty; he probably has a peptic ulcer. A thin little woman tells you that she has always had more or less vague

\* Abstract of an address given before the Ingham County Medical Society at Lansing, Michigan, April 26, 1928.

indigestion and that she is always having to be careful about her diet; she probably has so-called functional troubles.

#### THE NATURE OF THE SYMPTOMS

**Periodicity.** The next question is: Does the trouble come in attacks? If it does, you will suspect strongly that there is some organic cause such as ulceration of the stomach or bowel, cholecystitis or appendicitis. Particularly in the case of ulcer, the characteristic feature, at least in the earlier years, is the tendency of the disease to recur after many months of perfect health. In the later years the distress often becomes more or less continuous.

A knowledge of the length of these intervals will help in making the differential diagnosis between duodenal ulcer and gall-bladder disease. Patients with ulcer generally go free for a few months or for a year or two, while those with gall-bladder trouble will often go for many years without pain. The latter are more likely to have belching and distress between attacks, while the patient with ulcer will probably feel perfectly well.

The next question is: Are the attacks getting more severe and are they coming more frequently? If so, it means probably that the disease is getting beyond medical control and that the time is fast approaching when the patient is going to be driven to an operation.

#### THE ESSENTIAL POINT IN THE DIAGNOSIS

When a patient comes in with a gastrointestinal complaint, the big problem before the physician is not so much the making of an exact diagnosis as the making of a decision on the following point: Is there something organically wrong which needs surgical help and needs it soon, or is the trouble functional and likely to be relieved by medical treatment? Theoretically it would be a nice thing always to be able to tell the patient exactly what is wrong, but in many instances this is not essential. He may have an ulcer of the duodenum, a diseased gall-bladder or a bad appendix; he probably has two of these and he may have all three. Fortunately they can all be attended to through the same right rectus incision so no harm is done if the deformed duodenum turns out to be free from ulcer, but adherent to a gall-bladder full of unsuspected stones.

#### LOCATION AND SEVERITY OF PAIN

**Pain.** The symptom which helps us most in this differential diagnosis between

the serious organic and milder functional disturbances is pain. Where does the pain come and how does it radiate? Ask the patient to point to the part of his body in which the pain appears and watch what he does. Some pains radiate in a characteristic way. Sometimes you will be puzzled until you dig out the fact that there are two pains, one perhaps in the gall-bladder and the other over the heart.

The next problem is to find out how severe the pain is. Is it real pain or is it only a feeling of discomfort? Was it necessary to call a doctor, and did he administer morphin? The need for morphin commonly means cholecystitis. Find out if the patient is afraid to eat. This symptom is particularly significant in a stout woman with a good appetite because if the pain had not been severe enough to frighten her she would not be denying herself.

Find out also if the pain awakens the patient at night. Anyone who is awakened out of a sound sleep at 2 in the morning and has to walk the floor for a while is not a neurasthenic; he generally has an ulcer. If he cannot go to sleep on retiring he is more likely to be suffering from cholecystitis.

Find out what brings on the pain. Is it definitely related to the taking of food, or is there no relation? The most pathognomonic pain is that which is relieved by the taking of food; as you all know, it is found most commonly in cases of ulcer.

Find out if the pain is made worse by jolting. If the patient has driven in from the country in a small car, find out how he or she stood the trip. If a woman tells you that for the last part of the journey she had to hold on to her lower ribs on the right side in front because that region was made so sore by the jolting, you hardly need a roentgenogram to tell you that she has a diseased gall-bladder.

Pain and epigastric distress requiring the constant use of soda are practically always due to organic disease. If you find that your patient has a box of soda in his pocket, don't call him a neurasthenic; he probably has an ulcer. If the pain is relieved by the passing of gas or fecal material, or if it is relieved by an enema, you will look for the cause in the lower bowel, but it may still be in the stomach. If it is relieved by the passing of a lot of mucous the patient may have so-called mucous colitis, which is not true colitis, but probably a nervous affection.

**Tenderness.** If pain is a symptom you

will want to know if there is tenderness or soreness in the abdomen following the attacks. Definite tenderness and rigidity of the abdominal wall appearing after an attack of pain always means organic disease of some important organ.

#### THE REVERSE-PERISTALSIS SYNDROME

It is important to find out whether the patient has any of the symptoms which may be grouped together in what I have called the reverse-peristalsis syndrome. These symptoms are vomiting, heart-burn, belching, nausea, a feeling of fullness as soon as the patient starts to eat, a coated tongue, a bad taste in the mouth, and a feeling of back pressure against the diaphragm. These are all signs pointing to some organic lesion which is irritating the digestive tract and sending off reverse waves. Be careful in diagnosing organic disease of the stomach or bowel in the absence of these symptoms. They may be present, however, in neurotics, in women who are pregnant or who have pelvic disease, and in men and women with pulmonary tuberculosis or other weakening diseases. In all of these conditions there seems to be a flattening or reversal of that gradient of forces which I believe maintains the downward direction of peristalsis, and under these conditions, waves can easily run backward.

*Belching.* If the patient belches, be sure to differentiate between true belching, which is seldom repeated to any great extent, and false belching or air-swallowing, which may be kept up for hours. Ask if there is any bloating or passing of gas. If not, it may be silly and useless to change the diet; the patient has no indigestion, and all he needs is a sedative and some will-power to stop a nervous habit.

#### "ACID STOMACH" AND HEART-BURN

When the patient tells you he has an acid stomach, that does not mean necessarily that he has; it means probably that gastric juice is regurgitating from the stomach, where he cannot perceive it, up into the pharynx where he can. It is one of the signs of mild reverse-peristalsis.

*Nausea.* If the patient has nausea, do not think of gastric disease so much as of disease of the lower bowel. If the patient is a woman, think particularly of pregnancy or disease of the pelvic organs. In young women, think also of the neuroses.

*Vomiting.* Find out the relation of the vomiting to meals. If it comes immediately afterward it is often hysterical in na-

ture. Vomiting which is due to actual obstruction at the pylorus comes late, after the stomach has struggled for hours with its burden of food. You will ask if the patient has seen food eaten a day or two before; if so, there is no need for pumping the stomach because you will know that there is a serious delay in emptying, and that there is probably some organic disease at the pylorus.

*Loss of weight.* Marked loss of weight is always an ominous symptom, but you must first make sure that the patient has not been dieting. Many women nowadays are trying to reduce; others starve themselves when they have indigestion, and others are given food which contains so little protein that they have to live on their own tissues.

*Constipation.* If the patient complains of constipation, the first thing is to find out how long it has been present. If a little woman tells you she has been constipated ever since she can remember, you don't worry much about it, but if a man of sixty tells you that his bowels moved perfectly until a year ago, since which time he has had several attacks of severe constipation, you must get worried and you must stay worried until an expert roentgenologist assures you that there is no carcinoma in the colon.

#### HEADACHE WITH INDIGESTION

Many persons with migraine go to the gastro-enterologist because they have indigestion or constipation and they cling to the hope that if only those troubles could be cured they would lose their prostrating headaches. Here again a careful history is absolutely essential because upon it will be based the diagnosis and the decision as to the mode of treatment. We get to the crux of the problem by asking: Does the patient ever get the headache without indigestion, and does he ever get indigestion without the headache? Which seems primary and which bothers him most? These questions are important because the problem is: Can this man be helped by the removal of a diseased appendix or gall-bladder, or has he the purely cerebral form of headache in which abdominal operations can do no good? If the indigestion is always secondary to a headache and if in the intervals the stomach and bowel function perfectly, there is not much hope; but if the physician can, by skillful questioning, bring out a definite history of serious digestive upsets between headaches, something can perhaps be done.

*Jaundice.* If the patient has had jaundice you will want to find out how definite it was, and how it began. If with pain, you will think of stones; if without pain, you will think, in young persons, of infectious or "catarrhal" jaundice, and in old persons of carcinoma of the head of the pancreas. Most important is the past history. You will want to know whether the patient ever had any indigestion or pain which would suggest the presence of gallstones. If so, you may feel justified in operating. You will want to know whether the jaundice has been constant and whether it has been deepening or fading. Steadily deepening, painless jaundice generally means cancer. Chills and fever will suggest the presence of infection in the common duct. A history of jaundice in other members of the family will suggest the presence of the hereditary type of the disease.

*Dietetic habits.* You may be helped by finding out how the patient eats and what he eats. Does he bolt his food? does he overeat, or does he have rows with his family at every meal?

*Sleep.* I find that physicians often forget to ask about sleep, and yet not infrequently it is the most important point in the story. All one has to do with many so-called neurasthenics is to give them several nights of good sleep. It enables them to get a new grip on life; their sense of fatigue diminishes; their threshold for nervous stimuli rises, and most of their symptoms disappear.

The physician must always ask about worries, unhappinesses, family unpleasantness, financial troubles, love affairs, and the other things which bring on insomnia and the neuroses. If he lacks the requisite sympathy and interest and understanding to find out about these things and to talk them over sympathetically with his patients, he cannot expect to have their confidence and loyalty and affection; and without these aids he may find himself quite unable to help them with their physical troubles.

Finally if, after having taken a good history and having studied the patient carefully, the physician cannot make a diagnosis, the best thing for him to do is to sit down, as a consulting physician would do, and take the history all over again. Why? New facts of value will then be brought out, wrong impressions will be corrected and in many cases, the solution of the problem will become apparent.

## TWO TYPES OF TOXEMIA IN TOXIC ADENOMA\*

E. P. SLOAN, M. D.  
BLOOMINGTON, ILL.

Is toxic adenoma a distinct clinical entity? Much has been said and written concerning this point. Plummer was the first to insist on a definite distinction in classification between exophthalmic goiter and toxic adenoma. He emphasized the difference in onset and clinical course in the two conditions and brought out the fact that exophthalmic goiter has certain symptoms to some degree peculiar and characteristic and that the same is true to a certain extent of toxic adenoma. Other writers, as Crotti, and Allen Graham, claim that both conditions are merely "clinical variations" of a single disease." Graham points out the fact that frequently cases present all the symptoms and signs of exophthalmic goiter and nevertheless have adenoma in the thyroid. Furthermore, he states concerning the pathology which Plummer finds different in both conditions. "In an extensive experience with pathologic conditions of the thyroid we have been unable to detect a single quality of thyroid adenomatous tissue that could be recognized as constantly present in toxic adenoma and constantly absent in exophthalmic goiter and simple endemic goiter."

Graham furthermore discusses the reaction to iodin medication in the two conditions in his attempt to prove the unity of the two types of thyrotoxicosis. He finds "that the reaction to iodin is fundamentally the same in cases of exophthalmic goiter and toxic adenoma." This is not in accord with the opinion of most authorities.

To make his position plain we may include the following quotation. "If exophthalmic goiter and toxic adenoma are two separate and distinct diseases, there might be reason for expecting opposite effects from iodin therapy, especially if exophthalmic goiter is considered an essential dysthyroidism (incomplete saturation of secretion by iodin) and toxic adenoma is considered a pure form of hyper-thyroidism (secretion completely iodized). On the other hand, if exophthalmic goiter and toxic adenoma are different phases, degrees or variations of a single disease—the reaction to iodin should be of the same order in the two forms."

\* Read at The Post-Graduate Clinics of The Michigan State Medical Society and The Wayne County Medical Society and The Alumni Association of the Detroit College of Medicine and Surgery, May 16, 1928.

## TWO TYPES OF TOXEMIA

It seems to us that the confusion has arisen from the fact that there are two types of toxemia in the class of cases popularly called toxic adenoma. One form of toxemia is that which comes from absorption of degenerated products, the debris from hemorrhages, etc., within degenerated areas in the adenoma itself. This form of toxemia presents symptoms quite similar to those of an anaphylactic reaction due to absorption of foreign protein. The cases in this group tolerate iodin very poorly.

Out of a total of 3,458 cases of toxic adenoma 514 were of this class.

There is however, another and very distinct type of toxemia found in certain cases of toxic adenoma. This type of toxemia presents entirely different symptoms, different course and has a different reaction to iodin; the toxic symptoms of this group are quite similar to those of Graves' disease or exophthalmic goiter. While not benefited as much by iodin as the typical exophthalmic goiter case yet these cases usually respond very favorably to iodin.

These cases are often called secondary Basedow or secondary exophthalmic goiter. Out of our series of 3,458 cases of toxic adenoma 647 were included in this group. Not all cases of toxic adenoma, however, present symptoms exclusively of one type or the other. In this same series of 3,458 cases 865 exhibited a symptom complex suggestive of a combination of these two forms of toxemia. In the majority of these the symptoms due to the absorption of degenerated products, were of long standing, while the symptoms similar to those of Graves' disease and which were suggestive of hyperplasia in the gland were of more recent development.

The remaining 1,432 cases in our toxic adenoma group were of such long standing that the type of toxemia previously present could not be determined definitely. The most pronounced and constant symptoms were the cardio vascular symptoms.

A brief discussion of the two types of toxemia mentioned is in order.

## ANAPHYLACTIC TOXEMIA

It is recognized that in a certain number of cases of toxic adenoma there inevitably develops within the gland itself areas of degeneration and disintegration. These areas are at times quite extensive and it is only natural to assume that the absorption of the products of extensive degeneration

must be accompanied by certain symptoms over and above the symptoms of thyrotoxicosis. Our clinical observation has proved this assumption correct and we note in these cases symptoms directly referable to the absorption of protein substances from the broken down tissue. In other words, we note symptoms distinctly suggestive of an anaphylactic reaction. Among these symptoms may be mentioned slightly raised pulse and basal metabolic rate, dermographia, urticaria, respiratory paroxysms, paroxysmal tachycardia, digestive disturbances, slight jaundice, vomiting and diarrhea, puffy face and swollen eyelids. Tremor, eye findings and excessive nervousness are usually absent. An obvious goiter, weakness, loss of weight, sensitization to various food products, to iodin and other drugs, and cardio vascular disturbances are usually the outstanding features of the case. This type of toxemia although representing a large percentage of the toxic cases has been observed by us only in connection with adenomas in which degeneration had occurred in some portion of the gland. Frequently the complete picture does not develop until evidence of absorption of degeneration products has been present for some time.

## EFFECT OF BROKEN DOWN GLANDS

That the symptoms suggestive of anaphylaxis are due to the absorption of protein substance from broken down gland tissue seems to be born out clinically by the facts that:—

1. Degenerated areas are always found in the adenoma after removal.
2. The removal of the adenoma always gave relief.
3. It was found that many of these cases would respond favorably to desensitization by repeated injections of small doses of foreign proteid; the symptoms were aggravated by large doses.
4. The symptoms were intensified by the administration of iodin, strychnia, adrenalin or any other drug that has a tendency to increase sensitization. All the instances of "hyper-thyroidism induced by iodin" that we have seen were in patients that were classified in this anaphylactic group. In all the cases with pre-existing adenoma in which symptoms of toxicity were resultant on the administration of iodin it was found that areas of degeneration had existed in the adenoma and that symptoms suggestive of anaphylaxis formed part of the picture of thyrotoxicosis. In 187 out of the 514 cases in this group the history

reads that "the acute symptoms appeared after administration of iodin." In 146 other cases the history showed that thyrotoxicosis had already been present but had been intensified by the administration of iodin. 152 of the cases in the group developed symptoms of thyrotoxicosis during pregnancy and in 49 cases the thyrotoxicosis developed within three months after delivery. In 19 cases the toxicity appeared to be directly resultant on the injection of various substances into the tumor.

It may be of interest to note that of the 514 cases in the anaphylactic group 112 showed definite intrathoracic projections and 96 others were classed as retrosternal. It may be that undue pressure in these abnormal positions has a tendency to cause degeneration of the adenomatous tissue.

#### TOXEMIA IN ADENOMA OF THE HYPERPLASTIC VARIETY

Of the 647 cases that presented clinical symptoms suggestive of mild Graves' disease only 47 showed marked exophthalmus; the following symptoms, however, were present in all of them, tachycardia, palpitation, faint tremor, loss of weight, increased appetite, muscular weakness, and moderately increased metabolism.

If adenoma and toxemia are present and co-existent in these cases they must according to present custom be classed as toxic adenomata. The weight of evidence however, seems to indicate that the symptoms are directly attributable to the areas of hyperplasia that were found in every case in some portions of the gland not included in the adenoma.

The writer is of the opinion that in some instances of toxic adenoma, a localized hyperplasia occurs successively in separate areas of the gland, so that the symptoms of different stages of hyperplasia are present from different areas. In such cases, the typical syndrome of Graves' disease is not observed and in the presence of an adenoma the condition must be classed in the general group of toxic adenoma, notwithstanding the fact that the toxic symptoms may be due to hyperplasia. When the symptoms due to the hyperplasia are quite pronounced the case is usually called a secondary Basedow or secondary exophthalmic goiter in contra-distinction to the typical exophthalmic goiter. While the cardinal symptoms are by no means identical with those seen in typical exophthalmic goiter yet the difference is usually only that of degree.

#### MILD TACHYCARDIA

The tachycardia is often of mild degree and lacks the persistency and intensity of the tachycardia in Graves' disease. It may not be constant and at times may disappear almost completely. It is sometimes in late cases favorably influenced by digitalis. In the early cases the pulse rate is often between 95 and 105, the rhythm is regular and the first sound accentuated.

The cardio-vascular symptoms may not cause much trouble over a considerable period of time; except for some dyspnoea on exertion, dizziness, occasional palpitation, the patient may feel fairly well. Even in the advanced cases, pulse rate rarely or never reaches the degree of tachycardia observed in exophthalmic goiter. It is rarely above 120 to 130 except in paroxysmal attacks. Attacks of palpitation, however, become more frequent and more troublesome and sooner or later arrhythmia develops. Slowly the diastolic pressure falls and the systolic rises, thus, increasing the pulse pressure. The arrhythmia is usually a late symptom. It occurs spasmodically at first, later becoming constant. It is due usually to an auricular fibrillation; auricular fibrillation and auricular flutter are common in the late stages. Heartblock is occasionally seen. It was present in 119 of our cases. As the heart condition becomes worse, oedema supervenes and in a short time may become generalized.

Hypertension is common late in the course of the disease. Blood pressures of about 160 or 170 systolic and 100 diastolic are often found. This may be compared with the characteristic blood pressure for Graves' disease, which rarely runs above 135 or 140 systolic and 65 or 70 diastolic.

The thyroid swelling in toxic adenoma is usually large and irregular. It lacks the symmetry, pulsation, and compressibility of the thyroid in Graves' disease. Usually no thrill or bruit is audible. The goiter has usually been present over a long period of time.

Tremor is frequently absent. When present it is usually more coarse than the delicate tremor seen in Graves' disease. The mental symptoms, as compared with those seen in Graves' disease, are mild, and usually are not of much consequence. The persistent insomnia and the psychosis seen in Graves' disease are very rare indeed.

The eye findings are frequently absent and when they occur it is usually late in the course of the disease but exophthalmos

and eye findings occasionally develop in the hyperplastic type of toxic adenoma.

#### GASTRO-INTESTINAL

Constipation is often present. Loss of appetite is frequently complained of. The acute gastro-intestinal attacks noted in Graves' disease are rarely or never seen in the true case of toxic adenoma. Frequently a normal amount of food is taken and the weight remains normal over a prolonged period of time. As the disease progresses and the toxicity increases, weight is lost but it is a gradual loss and the terrifically acute wasting sometimes noted in Graves' disease is practically never noted.

Taken on the average the basal metabolic rate is considerably lower in hyperplastic toxic adenoma than it is in Graves' disease. The patient may be very ill with marked symptoms of toxemia and severe cardiovascular disturbance with slight rise in the basal metabolism rate. It is also noted that a rise in the metabolic rate in toxic adenoma is not always associated with the same degree of toxicity that a similar rise in Graves' disease would imply. It is difficult to give an accurate idea of the curve of basal metabolism in these cases of toxic adenoma. In the mildly toxic cases, in the early stages, there may be only slight elevation of the metabolic rate. In other instances the increase in the metabolic rate is pronounced throughout the whole course of the disease. The exceedingly high rate seen in some cases of exophthalmic goiter is rarely seen in toxic adenoma. The onset of the disease is insidious and it is the exception that an abrupt flare-up of toxicity is noted.

In conclusion we wish to state that clinical observation in a large group of cases over a long period of time has clearly convinced us that two distinct types of toxemia may be present in toxic adenomata, that these two types of toxemia may exist separately or in combination and that the treatment of these two types varies in some important respects.

The type of toxemia present will clearly indicate the mode of treatment. Anaphylactic toxemia contra-indicates iodin, toxicity due to the hyperplastic type of toxic adenoma indicates iodin. A clearer conception of these two types of toxicity will clear up much of the confusion that exists regarding the use of iodin in toxic adenomata; it will enable the surgeon to administer iodin to the case which needs it badly or even urgently and to withhold iodin from the patient for whom it is contra-indicated.

### HIGH FORCEPS: UNDER STRICT INDICATION TOGETHER WITH REMARKS OF A NON-ACADEMIC NATURE ON WHEN TO DO CAESAREAN SECTION FOR PELVIC INDICATION\*

FOSTER S. KELLOGG, M. D.  
BOSTON, MASS.

This title should raise bristles on a modern obstetrician's back. High forceps is in disrepute and it is the obstetrical fashion to decry it. A distinguished specialist says annually in meeting "high forceps—brutal, long since abandoned—never done by one of *us, I hope.*" We venture to suggest that such a statement is rubbish. We venture the belief that high forceps is, was and always will be a very useful and necessary operation providing it is done on proper cases and with proper technique. We think that poor reported statistics are due to the facts that both these provisions have not been followed. We believe that truly good forceps operators are scarce, yet we believe that any man who will make the effort can become one.

We are not before you to advocate delivering all women with forceps at full dilatation, nor do we recommend pushing up the usually engaged primiparous head and delivering it as a high forceps. Yet when confronted with the same proposition with respect to version we feel that if we followed the same requirement for that indication, namely, that the head can be pushed to the pelvic floor, we would prefer to take our chances with forceps and expect equally good results. Each man to his own weapon.

However, such debate need not concern us, since we are equally conservative as to both forceps and version—and have yet to see any method of delivery so satisfactory in the long run as that designed by nature, when it works. By the same token we are enthusiastic about giving it time to work.

#### WHEN TO DO A CAESAREAN SECTION

The question of sensible indication for high forceps is ultimately connected with the practical question of when to do a Caesarean section for pelvic disproportion. Observation in my own state and

\* Presented before the Post-Graduate Conference held under the auspices of the Michigan State Medical Society, the Wayne County Medical Society and the Alumni Association of the Detroit College of Medicine and Surgery, May 14-17th, 1928.

city leads me to the unpleasant conviction that men with really rational knowledge of when to do a Caesarean section for pelvic disproportion are as scarce as good forceps operators. I once said in the heyday of youth that the indication for Caesarean section in Massachusetts was the failure of the baby to arrive in time to suit everybody involved; and a checkup by others, notably my departmental chief, demonstrated that this was about the truth; and that in addition many were done as operations of last resort—among more patient people.

It is as important to know when not to do a Caesarean section as when to do one. This for the reason that the more Caesarean sections are done for no real indication, the more mothers die. Caesarean section carries with it an inevitable mortality even when done at time of election on cases that do not need it. No figures yet shown of classical, low, or so-called trans or extra peritoneal Caesarean section have demonstrated that it is as safe a way for a normal woman with a normal pelvis to have a child as by the natural passages. Therefore more Caesareans unindicated higher maternal mortality. Hence, every effort should be made to study out each patient with a view to obtaining as many deliveries through the natural passages as possible with a reasonable degree of safety to the child and to the mother's soft parts.

We may say in advance that we have pursued the course here to be outlined with satisfaction for a good many years. We have yet to lose a mother in private practice (in the uncomplicated case, i. e., toxemia, placenta previa, etc.), on delivery from below, though we have lost several Caesarean sections. We have lost two babies only from high forceps done as a result of following this routine. Both were errors not to be repeated with matured judgment. We have seen no cerebral hemorrhage, (other than in the two dead babies), and no permanent paralysis in these cases, though we have seen both after difficult versions, and the former after all sorts of deliveries. We have followed not a few of the children for five to ten years and have seen no mental inferiority in any. To those of you familiar with our expressed dissatisfaction with our results in other conditions of pregnancy, notably, toxemia, placenta previa, and premature separation, these claims will, perhaps, not seem extravagant, but will be accepted as fact. Needless to say, the number of such cases is not large,

since every effort is made to avoid them.

Little of what we are about to consider is original. It is all in the books; certainly in Newell's monograph, "Caesarean Section" (D. Appleton & Co., 1924). We have simplified it for our own practical use and tried to see the pelvis, labor, and prospective operating from below together and in advance of delivery in each case. Perhaps we have tried to see it more as a whole than the text books have it. Perhaps we have tried to a greater extent to have in mind the relation of each factor to each other factor. In a few points we disagree with the accepted text book teaching.

#### MECHANICAL FACTORS

The mechanical factors concerned in the successful termination of a given pregnancy are (1) the size of the child's head in relation to its mother's pelvis. (2) The character and accomplishments of the given labor.

The first factor is definitely estimable save for the matter of moulding. The second factor is one of which we can do no more than make an intelligent guess.

You are familiar with the rules laid down in the books to predetermine the mouldability of the head. Personally I am not keen enough to feel that they are of practical value to me and pay little attention to relative mouldability, assuming, rather, a certain amount in all my calculations. The one exception to this statement is the definite "solid ivory" head which is occasionally encountered. In that I assume no moulding. In this connection it must be borne in mind that moulding is principally a second stage procedure, and if we count on moulding in our estimate, our estimate as well must preclude operative interference prior to a reasonably prolonged second stage. There must be no "prophylactic this or that" if salvation depends on moulding a fetal head. This is a cardinal principle sometimes overlooked.

Thus disposing for the moment of mouldability of the fetal head, we may proceed as briefly as possible with the relation of the child's head to its mother's pelvis.

#### PREGNANCY—THREE GROUPS

By ordinary methods of examination and the use of Muller's method of head impression with or without anesthesia, all pregnant women fall into three groups. Group (1) those in which the head is or can be brought into the pelvis, i. e., anteriorly as low as the lower border of the symphysis and in apposition to it, posteri-

orally as low or nearly as low as a line drawn from one ischial spine to the other. Group (2) those in which the head is not and cannot be brought into the pelvis *and definitely overrides*. Group (3) those in which the head cannot be brought as low as the landmarks described under group (1) but which show no demonstrable overriding or only a little. Group (3) constitutes the border line group and is principally the subject of discussion in this paper. The technique of determining surely the level of the head in the pelvis, and still more the technique of Muller's impression method and the determination of overriding are still entirely too unfamiliar to practitioners of obstetrics in my part of the country; especially since on an accurate conception of these things depends the number of Caesarean sections done for pelvic disproportion, and ultimately the number of deaths following Caesarean section, of which there were fifty-four in 1927 in Massachusetts.

Digressing for the moment, let us consider factor number two as stated above, that is, the character and accomplishments of the given labor. As stated also, this is only guessable. In this connection this fact, not usually emphasized, should be borne in mind. Labor failure may manifest itself in one of two ways, either by poor pains with little result in effacement of the cervix, or again, and far less often, by pains of excellent quality, but with poor results in cervical dilatation. Certain types of cervices, I believe, not profitable to speculate on here, are prone to give rise to this second type of labor failure. For more authoritative substantiation, and better phrasing than I can attain, of the point I am about to bring out I may quote Newell's monograph "Caesarean Section." He says, "In the majority of border line cases a few hours trial of labor will give a strong hint as to the probable outcome." Further, "Of course, the result of labor cannot be accurately predicted in a certain proportion of cases until the patient has had a true test of labor, i. e., two hours in the second stage, but a few hours of labor will determine whether the case is likely to progress to a favorable conclusion, except in so far as the ultimate moulding of the head is concerned."

Thus we have considered the two factors. When is the time to make the complete examination which will give us the most information on which to guide our future conduct of the case? In the event of early rupture of the membranes, this

examination should be made as soon as the patient is hospitalized, since delay with ruptured membranes increases the risk of Caesarean section. Barring this accident the most favorable time is six to eight hours after the onset of labor. This for the following reasons: First, the probable character of the labor may be estimated. In this connection a chart of the pains—interval and length, often shows one of two phenomena, either, broadly speaking, regular diminishing intervals with regular progressing length pains or irregular intervals with irregular length pains. Experience has shown that the former usually means a good subsequent labor, the latter a less good subsequent labor. Second, examination at this time allows us to check the amount of dilatation against the labor chart. Experience teaches us what dilatation to expect from a labor chart of the first 6-8 hours. Experience shows further that if this expected dilatation is not obtained, we may look usually for a prolonged first stage and too often ultimate failure of the cervix to be completely effaced, with results which I shall later stress. Third, the cervix is usually taken up at this time and experience shows that it is easier to determine by the Muller method the "potential" level of the head after this has been accomplished.

Two questions immediately are raised and may be answered here. Six to eight hours of first stage labor with unruptured membranes does not, we believe, increase the risk of Caesarean section: The Muller method may be applied with rectal examination instead of vaginal, though never quite so accurately, we think. My own results in 180 personally done low classical sections, however, leads me to have no fear of a single carefully made vaginal examination six to eight hours after labor has begun. Also, of course, many cases present either so overriding a head to palpation before labor starts that this examination can well be made in advance, or so low a one to the ordinary pre-labor rectal that this examination is never indicated.

Returning from this digression to our groups. Let us consider, for purposes of elimination, Group 2 first. In these definite overriding is predetermined by the accurate Muller method. In the light of Caesarean mortality in good hands it would seem (in white women, at least,) that these patients should be subjected to elective abdominal section within the first few hours of labor. It is the contention of

some of the advocates of trans and extra-peritoneal methods—that these methods make Caesarean section so safe from the standpoint of infection that they may be done after many hours of labor, or after many hours of ruptured membranes, or after repeated vaginals or even after other intra vaginal manipulations, and further, that these methods do away with the necessity for accurate determination of the relation of the head to the pelvis. They maintain that all that is necessary is to permit the patient to have as many hours of labor as one wishes and then on failure to deliver the baby, she may be safely sectioned. They maintain that in this way many women who would otherwise be subjected to section relatively early will deliver themselves or come to low forceps and that thereby many less Caesareans will be performed. These things may prove to be true, but on present knowledge we deplore the tendency of this doctrine to take hold for several reasons. Three which may be mentioned here are, first, that we have not that much faith in the safety of the trans and extra-peritoneal sections over the low intra-peritoneal section, and we feel that with time and accumulated data about the same contraindications must govern the one as the other. We fear that any technique advertised as permitting further laxity in respect to the prescribed contraindications to Caesarean section will but end with a higher maternal mortality; since we observe in practice so frequent disregard of the rational contraindications now. This in spite of the fact that we think Phaneuf's modification of the Beck and Kerr operations technically the best type of Caesarean section yet devised. The second reason is that if we abolish Muller's impression method and do late extra-peritoneal sections we will do them for first stage failure on patients with normal pelvic relations, a procedure seldom, though occasionally, justifiable. Third, an occasional baby may be lost from prolonged test of labor even before a hasty section gets it out of the uterus.

Group 1—those cases in which the head is, or can be put to full engagement. This group should be almost invariably delivered from below. It is in this group that I dissent from the accepted text book teaching with regard to the funnel pelvis and the narrow outlet. I would not care to publicly disagree with the academic figures given for the incidence of these conditions, though I have my own opinion

on that, but I make no hesitation in stating my belief that as a cause of severe dystocia (in white women) the narrow outlet and the funnel pelvis are almost, *but not absolutely*, negligible. Of 180 personal Caesareans, I have done one for contracted outlet, and on this woman had previously delivered a five pound baby with low forceps. Conversely I have not been sorry that I did not section any patient on this account. Very occasionally a short posterior saggital and a narrow transverse diameter of the outlet in the same patient may make section wise. A more frequent reason for disaster to the soft parts and sometimes to the baby, is a failure to recognize a flattened sacrum which hinders rotation, especially in posterior positions. Trouble is avoided in these cases by high rotation and it is in these cases sometimes that the technique of Bill of Cleveland is of especial value.

We now come to Group (3), cases in which the biparietal diameter of the head is not, and cannot be impressed, through the inlet, but with little or no overriding. These border line cases are sometimes best delivered from below, sometimes by section, depending on the following considerations. The successful outcome of such a case delivered from below depends on one of two things. A labor of accomplishment with some moulding, or failing this a correctly done operative procedure from below, not infrequently a high forceps. When the indicated operation is for a high forceps its success in this border line pelvis depends on the operator's ability to get the blades over the ears at the initial application since anything less favorable than the smallest diameter of the head pulled through an inlet already tight must result in an unreasonable number of dead babies from torn falx and tentorium, traumatic cerebral hemorrhage, in short. This, not only because of the relatively large diameter of the head for the given pelvis, but because the oblique application of the blades has the same twisting traction effect as have the hands of a boy on an apple which he splits by rotating one half one way, the other the opposite. The operator's success in this application depends not only on his experience and skill, but on three other conditions usually considered in general, but of far greater importance in connection with the application of forceps in this border line group and not usually so stressed. These three conditions are (1) the persistence of a cervical ring. (2) Excessive depth of the

symphysis (that is to say, its verticle dimension). (3) A narrow arch and small outlet. Experience has shown that oblique applications are more common, even in the hands of skilled operators, when any one of these conditions exist, or still more when they exist in combination. While it is true that a low head of an eight pound baby may be brought through an outlet too small to take the fist with no more damage to the mother than an episiotomy wound, it is likewise true that to apply forceps over the ears to a high head in the presence of a persistent cervical ring with a similar outlet is often extremely difficult. So also the difficulty of applying correctly the anterior blade high in the presence of a deep symphysis is not inconsiderable. If then in the border line group the labor study of 6-8 hours, if favorable, and the outlet and the symphysis favorable we should deliver from below; if both are against us we should section. If the one is favorable, the other unfavorable, the decision must be left to individual judgment, with possible resort *occasionally* to a late extra peritoneal section if one has faith in it, or the occasional dead baby till judgment becomes better. Obviously the earlier man in obstetrics will do more Caesareans under this indication, the more experienced man fewer. Hence, to reiterate, the more experienced man's maternal mortality will be lower and his fetal mortality as low or nearly as low. I have a feeling that we are living in an obstetrical age too afraid of losing a baby, and not sufficiently afraid of losing a mother. It should always be borne in mind in every case that once we commit ourselves to a Caesarean section and start it even under strict indication, the outcome is pretty much beyond our control and seems to rest chiefly in luck. A maternal mortality in Caesarean section of 9 per cent in Massachusetts a few years ago perhaps over emphasizes this statement.

Let us return to the original thesis of high forceps. I have abandoned high forceps for certain indications in which I formerly did them. Version sometimes seems the operation of choice in multipara with normal pelvic relations where operation is forced by failure of the cervix to dilate. Sometimes I think less harm is done the cervix, and that there is less stretching down of the ligaments by version. I often put on forceps in these cases and with gentle traction observe whether or not the anterior blade seems about to split the cervix and base my choice of operation on

this observation. Again in a definitely flat pelvis, either in the border line or in a pelvis with normal relations, I resort quickly to version unless the first forceps application is immediately satisfactory. Again, the discovery of a low lying cord leads me to version, without attempts at forceps.

It may be seen, then, that there is left a narrow but none the less definite field for high forceps. Ruled out by Muller's method of impression, no overriding head is ever, or ever should be subjected to high forceps. A head presentation with lower segment ring formation or with a tight uterus, if it can be delivered from below, should always be delivered with forceps by special technique, and this is frequently a high forceps. Failure to observe this rule, the resort to version in these cases supplies us with a steady, if small trickle of traumatically ruptured uteri. The *justo minor* pelvis, as opposed to the flat, but without pelvic disproportion with first stage failure and a head which has not descended into the pelvis itself should be delivered by high forceps. And lastly the border line case (Group 3) in which the decision to deliver from below has been made and labor fails in the first stage or early second, in the *justo minor* (as opposed to the flat pelvis) *must* be delivered by high forceps requiring a high degree of obstetrical skill. It is in this group that version is absolutely contraindicated. Crothers' excellent work has shown this. My interpretation of his work is that the greatest of all obstetrical tragedies, the child destined to live, dead from the neck down, almost invariably results from a version done on this type of case, or sometimes an unskilled version done in any case. Such observation as I have made on the production of this lesion leads me to conclude that this interpretation is correct. Better the occasional massive hemorrhage from the torn falx or tentorium than the small cord injury leading to massive paralysis. Not only is the baby thus put in jeopardy, but so is the mother. In the Massachusetts mortality statistics for 1927 we have listed twenty-six cases with causes of death given "after difficult operative delivery." This is approximately 5 per cent of all maternal deaths for the year. Of these twenty-six, ten are set down by the men who signed the certificate as "after version." Doubtless some of the others were too, though not so stated.

Teaching the importance of perfection in obstetrical technique in detail and the

technique, both of forceps and of version is our scholastic duty. Too often men previously trained in surgery are graduated from obstetrical hospitals, but mediocre obstetrical operators, though well trained enough in abdominal surgery, all too ready on this account to overdo abdominal surgery, and forced to perfect their obstetrical technique, if ever, at the expense of early patients.

In conclusion: We believe it is not true that high forceps is an obsolete operation. We believe it has a definite, if narrow field. We believe perfection in its technique should be sought by all practitioners of obstetrics. This so that on the one hand version will not be done when contraindicated, because the operator is not skilled in forceps, and on the other that Caesarean section may be kept within its strict limits.

## LIVER FUNCTION

C. W. HEALD, M. D.  
W. B. LEWIS, B. S., M. D.  
BATTLE CREEK, MICHIGAN

The liver is the largest and one of the most important glands of the body. Its double blood supply and production of internal and external secretions has made it a continuous source of interest to the physiologist. There are even yet many problems concerning its function. Its activity is very necessary for health and it is a well known fact that if it be removed life becomes extinct in a few hours. For centuries the liver has been considered the king of organs.

It is a well established fact that the liver detoxicates the poisons taken into the body, such as arsenic, phosphorous, chloroform, and other products of a toxic nature formed by metabolic process in the body.

For a considerable time we have had accurate knowledge relative to the gross anatomy dividing the liver into lobes and giving detailed description of the circulation. The histology also has been worked out telling of the lobules, inter-lobular and intra-lobular vessels, bile ducts, the reticulo-endothelial cells, and supporting connective tissue.

Last but not least in this role is physiology which has to do primarily with the function of the organ. The untiring efforts of recent investigators have brought to us new chapters in the physiology of the liver. Here we may enumerate some of the factors that have been definitely

worked out and proven during the last few years.

### IMPORTANT LIVER FUNCTIONS

1. Mann has demonstrated that the removal of the liver results in death in from two to eight hours during which time the animal presents a group of symptoms which are practically always the same<sup>1</sup>.

2. The formation of urea is dependent upon liver activity.

3. The commonly accepted belief is that bile pigment is a product of destroyed blood cells, that the transformation occurs in the Kupffer cells of the liver and other portions of the reticulo-endothelial system and that the hepatic cells serve the purpose of excretory cells<sup>3</sup>.

4. Formation and storage of glycogen in the liver<sup>4</sup>.

5. Destruction of uric acid in the liver<sup>5</sup>.

6. Secretion of bile.

7. Important regulation of metabolism assisting in the transformation, assimilation and distribution of food stuffs.

8. Detoxicating function.

### THE ANATOMICAL AND PHYSICAL UNIT

These functions depend very largely upon the activity of the liver cell which constitutes the anatomical and physical unit of the organ. The liver cells are quite uniform in structure throughout the entire organ. The function of the liver cells naturally falls into two divisions, one treating of the formation and physiological significance of bile, the other the changes which take place in the blood gathered from the entire intestinal tract, laden with food elements, digestive ferments and possibly unknown hormones, which is passed through the liver by the portal circulation resulting in definite metabolic processes. Glycogen is one of its principal products, being stored in the liver cells until it is needed for distribution in the body to keep up the level of blood sugar. Like many other organs in the body, the liver possesses a very large reserve capacity. Experimentally seventy per cent of the organ has been removed without producing apparent effect upon the general condition of the animal. It has also been found that the hepatic tissue is capable of undergoing compensatory hypertrophy to a very large degree<sup>1</sup>.

Much research has been made in recent years to increase our knowledge of the anatomy and histology of the liver. At the same time there has been much work done by many investigators relative to the test-

ing of the function of the liver. Any tests to be of value should be based on physiological facts, or depend upon some specific property possessed by the organ in question. This work has been approached from several different angles and diversified results have been obtained, some satisfactory and some unsatisfactory.

#### DYE TEST

In 1909 Abel and Rowntree determined by pharmacologic studies that phenoltetrachlorphthalein was excreted almost entirely by the liver and that it was non-toxic when injected intravenously. This dye was found to be an odorless crystalline substance, insoluble in water and forming deeply colored hydrolyzable salts with alkalies. The dye was first prepared by Erndorff and Black. Rowntree<sup>6</sup> and his associates advocated the use of phenoltetrachlorphthalein to test the functional capacity of the liver. Tests were made at this time by collecting stools and estimating the amount of dye excreted in the stool. In 1916 McNeil<sup>7</sup> modified the Rowntree method by inserting the duodenal tube and aspirating the bile. The method of collecting the dye in the stools was subject to sources of error and required a large amount of work, for which reason it was soon abandoned. The duodenal tube method has obvious clinical limitations because of the difficulty in passing the tube and the impossibility of collecting all the bile, and soon fell into disrepute. The problem was then approached from another angle in 1922 by Rosenthal<sup>8</sup> who devised the method of investigating the liver by injecting the dye into the blood stream. All previous tests suggested qualitative disturbance only, but the dye test as suggested by Rosenthal gives a quantitative idea as to the amount of liver involvement. A few disadvantages had been noted in the employment of the phenoltetrachlorphthalein. The dose required was rather large, irritation of the vein was frequent and occasionally thrombosis and systemic reactions occurred. Because of these objections Rosenthal set out to make a study of the large group of phthalein compounds with the result that a new dye, phenoltetrabromphthalein sodium sulphonate, was found which seemed to be ideal for the testing of liver function. It is excreted in the bile of a normal rabbit to the extent of 85 per cent in one hour after its injection. Under normal conditions it is rapidly removed from the blood stream by the liver cells, since, when the liver is removed, it

remains in toto during the early period following injection. These are striking advantages over the former dye which, when injected into the rabbit under like conditions, is excreted in the bile to the extent of only 5 to 10 per cent in one hour and which never reaches a high concentration.

Bromsulphalein appears only in traces in the urine and sometimes not at all<sup>9</sup>. This dye has the following advantages: First, the dose is small, being only two milligrams per kilogram of body weight. Second, even though injected accidentally outside the vein there is little irritation and no thrombosis. Third, there is no constitutional reaction.

The simplicity of Rosenthal's method and the slight danger and inconvenience to the patient led us to give further study to the subject. To date the test has been applied to three hundred individuals at the same time estimating the urobilinogen in the urine, the glucuronic acid in the urine, also doing the Van den Bergh, direct and indirect, as well as the icterus index on the blood serum.

According to Shattuck<sup>10</sup>, normally from three to five per cent of the dye is present in the blood serum at the end of fifteen minutes and none at the end of one hour. In our estimation we adopted as our standard zero to ten per cent at the fifteen minute period and zero at the thirty minute period. Some objection has been found by clinicians to the bromsulphalein test because it necessitates two vein punctures instead of one. In our experience this has not been particularly objectionable to the patient and no serious complications have arisen in the examination of three hundred cases.

#### ICTERUS INDEX

The icterus index is a test that has met with favorable mention in recent years. The results depend largely upon the behavior of the bile pigments. The formation of bile pigment is yet a debatable question, but there seems to be a preponderance of evidence that it is very largely an extra-hepatic product and formed from the hemoglobin of the blood. Physiologists recognize that blood is continually being destroyed and pigment liberated. This being true, there must be a bilirubin constant in the blood serum<sup>11</sup>. The normal range has been placed at approximately one part of bilirubin to 500,000 to 600,000 parts of serum.

When this concentration of pigment has increased to approximately one part in 60,000, the tissue cells reach the point of

saturation and macroscopical jaundice appears. The range of bilirubinemia between the normal and the development of jaundice is known as "latent jaundice."

It becomes at once evident that the value of the test lies in its ability to estimate the bilirubin present in the blood stream, particularly during the period of latent jaundice. Expressed in figures, Bernheim<sup>12</sup> states that the normal range is between *four and six* and latent jaundice between *six and fifteen*.

Any pathological process which would have a tendency to interfere with the normal hemolytic process of the body, such as anemia, hemolytic jaundice, malaria, etc., would undoubtedly increase the serum pigment quantitatively.

The main objection to the test is that the color of the serum is so easily interfered with, for instance, by the slightest degree of hemolysis, or other colored substances in the blood. We have observed, in connection with the Graham test for gall bladder disease, that the dye used (iso-ideikon) causes a deepening of the color of the serum, giving too high an icterus index.

#### VAN DEN BERGH'S TEST FOR BILIRUBINEMIA

In this test for bilirubinemia there are two possible reactions, a direct and indirect. Theoretically, they are supposed to differentiate between obstructive and non-obstructive jaundice, the reaction for the latter being due to injury directly to the liver cells or from jaundice extra-hepatic in origin.

In cases of obstructive jaundice the color of the serum changes promptly from yellow to a pink or violet and indicates a positive direct reaction. The indirect reaction is obtained in obstructive, non-obstructive and latent jaundice, and is a measure of the total bilirubin (both free and combined) in the blood. The results in the indirect reaction are due to the fact that the bile pigment in the blood is united with some form of protein and requires the presence of alcohol to break it up, while in the obstructive jaundice the bile pigment is found in the free state. A probable explanation of how the bilirubin is liberated from conjugation with the protein is given by Hall<sup>13</sup>. He states that in obstructive jaundice due to the stasis there is an increase in *bile salts* in the blood. These bile salts act as does alcohol in liberating the bilirubin so that it gives an immediate color reaction.

We have interpreted zero to a trace as

dice, and from one plus up, clinical icterus.

The presence of the serum of this dye (iso-ideikon) interferes with the determination of the direct Van den Bergh test for bilirubin creating a false positive, and serum collected half an hour following the injection may give a one plus reaction. The serum collected one hour following the injection may give a two or three plus reaction.

#### GLUCURONIC ACID LIVER FUNCTION TEST

This test makes use of the Tollens and Rorive reaction, with Naptho-Resorcin. It has been advocated by Professor H. Roger, Dean of the Paris School of Medicine, for many years.

Of the many functions of the liver, that of detoxification is one of its best recognized and most important. In response to the toxins brought to the liver by the normal, a trace to one plus as latent jaundice, the liver converts the glycogen into glucuronic acid and then conjugates or binds this acid with the toxin, thereby forming a compound of much decreased toxicity, which is then eliminated through the kidney without injury. Thus, as these toxins are always formed more or less, we find the conjugate glucuronates present in normal urine.

If a sample of urine shows an absence of the glucuronates, then the patient is given an evening meal consisting chiefly of starchy foods, sugar and milk. Also as a test material that will combine with glucuronic acid, one-half gram of camphor in a capsule is used. The urine is then saved for twelve hours and tested for glucuronic acid. If still found absent, it indicates failure of this function of the liver.

#### UROBILINGEN

There has been, in the past, a lack of agreement as to the origin of urobilinogen. But in the more recent researches of several workers there seems to be more and more agreement as to its enterogenous origin, as stated by Wallace and Diamond<sup>4</sup>. Bilirubin, entering the intestines, undergoes gradual changes, and eventually in the large intestine, by means of bacterial decomposition, becomes transformed into urobilinogen. The urobilinogen thus formed is mainly eliminated in the feces. Some of it undergoes intestinal absorption and is carried to the liver, there to undergo further changes; part of it, however, is eliminated in the urine unchanged.

It is this latter portion which constitutes the normal urobilinogen of the urine.

## TYPICAL RESULTS SELECTED FROM 300 CASES

Case No.	Bromsulphalein			(dir.)	Van den Bergh	Icterus Index	Urobi- linogen	Gluc- uronic Acid	Normal
	5 min.	15 min.	30 min.						
185-161	35	tr.	0	0	0	—	1	+	Normal
184-209	45	0	0	0	0	—	5	+	Normal
186-006	28	0	0	0	0	3	1	+	Normal
184-515	60	tr.	0	0	0	Norm.	1	—	Normal
186-265	23	tr.	0	0	0	Norm.	1	0	Normal
186-583	—	0	0	0	0	Norm.	1	+	Slight disturbance
173-264	—	7	0	0	+	Norm.	10	+	Slight disturbance
187-316	—	10	0	0	tr.	Norm.	10	+	Slight disturbance
187-698	—	5	tr.	0	0	6	1	+	Slight disturbance
186-592	—	12	tr.	0	0	Norm.	15	+	Slight disturbance
187-987	35	10	0	0	+	Norm.	10	+	Moderate disturbance
186-092	50	22	5	0	+	6	30	+	Moderate disturbance
173-397	—	30	15	+	+++++	Norm.	1	?	Moderate disturbance
178-205	—	15	8	+	++++	+	1	+	Moderate disturbance
179-414	70	40	10	0	++	—	5	?	Moderate disturbance
184-306	80	—	70	—	—	—	150	0	Severe disturbance
183-762	85	40	25	0	tr.	14	20	+	Severe disturbance
186-286	67	50	40	+++	++++	17.1	1	?	Severe disturbance
187-465	—	67	48	+	++++	17.1	4	+	Severe disturbance
187-857	—	55	35	++	++	8	1	+	Severe disturbance

Then, if the function of the liver which transforms urobilinogen is interfered with or lost, the urobilinogen passes unchanged through the liver and appears in increased amounts in the urine.

We have used Wallace and Diamond's method, the figures expressing the greatest dilution of the urine in which the pink color resulting from the reaction of the urobilinogen and Ehrlich's aldehyde reagent is present.

The table, for convenience sake, has been divided into four groups. Group No. 1 represents five cases in good health. It will be noted that all the findings are within the normal limits. Group No. 2 represents five individuals in whom, according to history and other findings, pathology would not be suspected, but it will be noted that there is just a slight deviation from the normal. Group No. 3 represents another class in whom there is considerable clinical evidence of pathology. Here it will be noted that there is more or less retention of dye. The indirect Van den Bergh, Icterus Index, and Urobilinogen show a more marked deviation from the normal. Group No. 4 represents another class in which there was definite known pathology. It will be noted here that the retention of dye is much more marked and other tests in the series represent a higher percentage of positive findings. These groups have been selected from a series of three hundred cases and are fairly representative of findings.

As a result of our study in three hundred cases it is our opinion that a diagnosis must be reached by properly evaluating the results of a group of tests and one's observations rather than by relying on any single test.

## REFERENCES

1. Mann, F. C.: Studied in the Physiology of the Liver: Technic and General Effects of Removal, *Am. J. Med. Sc.* 161:37, 1921.
2. Bollman, Mann and Magath: Studied on the Physiology of the Liver: Effect of Total Removal of the Liver on the Formation of Urea, *Am. J. Phys.* 69:371, 1924.
3. Wallace, G. B. and Diamond, J. S.: Significance of Urobilinogen in Urine as Test for Liver Function, *Arch. Int. Med.* 35:698, 1925.
4. Bollman, Mann and Magath: Studies on the Physiology of the Liver: Muscle Glycogen Following Total Removal of the Liver, *Am. J. Phys.* 74:238, 1925.
5. Bollmann, Mann and Magath: Studies on the Physiology of the Liver: Uric Acid Following Total Removal of the Liver, *Am. J. Phys.* 72:629, 1925.
6. Rowntree, Hurwitz and Bloomfield: An Experimental and Clinical Study of the Value of Phenol-Tetrachlorophthalein as a Test for Hepatic Function, *Bull. Johns Hopkins Hosp.* 24:327, 1913.
7. McNeil, H. L.: The quantitative Estimation of Phenol-Tetrachlorophthalein Excreted in the Fresh Bile in Disease of the Liver, *J. Lab. & Clin. Med.* 1:822, 1916.
8. Rosenthal, S. M.: New Method of Testing Liver Function with Phenol-Tetrachlorophthalein, *J. A. M. A.* 79: 2151, 1922.
9. Rosenthal, S. M. and White, E. C.: Clinical Application of the Bromsulphalein Test for Hepatic Function, *J. A. M. A.* 84:1112, 1925.
10. Shattuck, Browne and Preston: Clinical Value of Some Recent Tests for Liver Function, *Am. J. Med. Sc.* 170: 510, 1925.
11. Barrow, Armstrong and Olds: Clinical, Pathological and Operative Study of the Icterus Index, *Am. J. Med. Sc.* 169:583, 1925.
12. Bernheim, A. R.: Icterus Index (a Quantitative Estimation of Bilirubinemia), *J. A. M. A.* 82:291, 1924.
13. Hall, W. W.: The Van den Bergh Reaction for serum Bilirubin with Notes on Interpretation and Technic, *J. Lab. & Clin. Med.* 12:529, 1927.

## A BRIEF SURVEY OF THORACIC SURGERY\*

JOHN ALEXANDER, M.D., F.A.C.S.  
ANN ARBOR, MICHIGAN

Widespread interest in the progress of thoracic surgery is my incentive for presenting these notes dealing with the pres-

\* From the Department of Surgery, University of Michigan Medical School.

\* Read before the Clinical Congress sponsored by the Wayne County Medical Society, the Alumni Association of the Detroit College of Medicine and Surgery, the Michigan State Medical Society and the Department of Post-Graduate Medicine, University of Michigan, Detroit, May 14-17, 1928.

ent status and new developments of the subject.

More prompt recognition than is usual at present of the proper time for surgical intervention in empyema, pulmonary tuberculosis, bronchiectasis, lung abscess, thoracic trauma and open pneumothorax, cancer, benign stricture and diverticulum of the oesophagus and malignant and non-malignant tumors of the mediastinum, lung and chest wall would be rewarded by a partial reversal of the present grave prognosis in these diseases.

A sound, although not necessarily an elaborate, knowledge of thoracic anatomy, physiology and pathology is especially important for the making of accurate diagnoses of thoracic lesions and for determining upon rational methods of treatment. Without a mental picture of the true pathologic nature of chronic pulmonary suppuration, treatment can be little better than empiric. Without knowledge of the normal lower limits of the pleural cavity, drainage of empyemic fluid is more likely than not to be faulty and ineffective. Without understanding the physiologic principles of normal negative intrathoracic pressure, the effects of an open pneumothorax on the heart and respiration cannot be intelligently combatted.

The belief is widespread that thoracic diagnosis largely depends on highly developed proficiency in eliciting minute physical signs. It would be far nearer the truth to say that diagnosis depends rather on a common sense interpretation of such easily determined signs as displacement of the heart; dullness, resonance or tympany in the lung fields; absent, decreased, increased or perverted breath sounds; increased or decreased tactile and vocal fremitus; and the presence or absence of rales.

A good physical examination, a careful history and an expertly interpreted X-ray examination are three tools that should be used together, and the constant temptation to rely too absolutely on the X-ray, be avoided. The value of the X-ray has recently been greatly enhanced by lining the bronchial tree with lipiodol, an oil that is opaque to the rays and which may be injected into the lung through the mouth by a relatively simple technique. Further diagnostic and therapeutic aids occasionally of great value in certain thoracic conditions are bronchoscopy, oesophagoscopy and intrapleural thoracoscopy.

#### EMPYEMA

Probably the chief reason for the gravity of acute empyema is that it is so frequently diagnosed too late. Toward the end of a pneumonia increase in toxicity, dyspnoea, pulse and respiratory rates, or failure of these to improve, should immediately arouse suspicion of empyema rather than of delayed resolution. A small or a large area of dullness and diminished breath sounds, with Skodaic resonance or tympany, rales and increased breath sounds and fremitus above this area should be the cue for the introduction of a diagnostic needle into the middle of the dull area. Somewhat similar signs present in hepatic or subhepatic abscess or may be caused by paresis or paralysis of one side of the diaphragm, which not rarely occurs in some acute intrathoracic diseases. Interest has recently been aroused by "massive collapse of the lung" or acute atelectasis which occurs after surgical operations, particularly those that restrict free respiratory and coughing movements because of pain, and which presents somewhat the clinical picture of pneumonia and the physical signs of empyema, with the exception that the heart is pulled toward the dull side in atelectasis, whereas it is pushed in the opposite direction by empyema. The condition should be treated by having the patient lie part of the time with the affected side uppermost, take deep breaths at intervals and, by coughing, attempt to dislodge the tenacious mucus that is occluding one or more bronchi. If this fails, aspiration of the mucus through a bronchoscope within twenty-four or forty-eight hours seems to be proving specifically effective in curing the condition and in preventing progression to pneumonia.

Rib resection for open drainage of early acute empyema has probably killed as many as it has saved. It allows atmospheric air pressure to rush into one whole pleural cavity which has not yet had time to wall off the empyemic abscess with adhesions. Similarly the mediastinum is not yet fixed by inflammatory exudate and it swings from side to side with each inspiration and expiration and neither lung is able to breathe efficiently. If the vital capacity has already been greatly lowered by the pneumonia the patient is likely soon to die. Until adhesions form, therefore, prompt and repeated needle aspirations of the empyemic fluid or, preferably, the airtight intercostal introduction through a cannula of a drainage tube and a smaller

tube for frequent antiseptic irrigations, is the only proper treatment. In children this usually suffices; in adults secondary rib resection is commonly necessary. So that airtight drainage may be maintained as long as possible it is important that the skin and extracostal muscles be pushed upward before introducing the cannula or urethral endoscope, so that when they return to their normal position the drainage tube will pass obliquely through the chest wall. This tends to prevent leakage around the tube.

The principal avoidable cause of acute empyema becoming chronic is improper drainage, which includes drainage that is performed too early, too late, for too short a period, and drainage that is not dependent or is attempted with too small a tube, or without the introduction of a second tube for antiseptic irrigations. Drainage tubes should never be removed until the intrathoracic cavity is entirely obliterated. Infraction of this rule almost invariably results in recurrence of the empyema and necessity for reoperation. Other causes of chronicity are imperfectly drained secondary pockets; the presence of foreign bodies, such as a lost drainage tube, in the pleural cavity; osteomyelitis of the ribs; continued reinfection of the cavity by way of a bronchopleural fistula or from a neighboring suppurating focus; tuberculous or actinomycotic infection of the cavity walls. Incidentally, a tuberculous empyema that is not secondarily infected with pyogenic organisms, no matter how ugly the aspirated pus, should never be drained. One or more needle aspirations may be necessary to control symptoms of pressure on the heart and lung. Diagnosis of the tuberculous nature of some mixed infected empyemata remains unmade until tubercles are discovered in a specimen of parietal pleura routinely removed for pathologic examination at the time of establishing open drainage for pyogenic infection of the cavity.

Prolonged adequate drainage and antiseptic irrigations of a chronic cavity that has been inadequately drained results, in a large majority of cases, in a tremendous decrease in the size of the cavity or its complete disappearance. Those cavities that fail to close by this means must be treated radically because the scar on the lung and beneath the ribs that constitutes the walls of the empyema is now too rigid to permit the lung to expand to meet the chest wall or the chest wall and ribs to fall in to reach the lung. Without com-

plete obliteration of the cavity suppuration will continue interminably.

Two types of operation are available for chronic empyema. One peels away from the visceral pleura the scar that is binding down the collapsed lung, thereby allowing it to expand and fill the cavity. The other removes the ribs, or the ribs and subjacent thickened costal pleura, so as to allow the muscles and skin of the chest wall to drop in to the lung and close the cavity. The former operation, the Delorme-Fowler decortication, usually is not possible in empyemata older than six months. The latter operation, the Estlander or the Schede type—is quite effective, but because of its extensiveness should be performed in more than one stage. These chronic empyemic cavities usually lie beneath the scapula and therefore the original extracostal muscle incision should be made wide of the limits of the cavity so as to provide sufficient pedicled muscle to turn up under the scapula to fill the space between it and the lung.

#### PULMONARY TUBERCULOSIS

When tuberculous disease is clinically confined, or almost confined, to only one lung and fails to heal under careful sanatorium regime, mechanical therapy is life-saving in certain cases. This aims to put the diseased lung at rest from its constant respiratory movements and more or less to compress the lung so as to obliterate cavities that are often present. This treatment is so effective in properly selected cases that undoubtedly it constitutes the greatest advance made in the treatment of pulmonary tuberculosis during the past fifty years.

Compression of the lung is most simply attained by artificial pneumothorax. This consists in the introduction of filtered air through a small needle into the pleural cavity, thereby pushing the lung away from the thoracic walls, when it becomes a shrunken practically airless immobile mass. As two or more years are necessary for advanced tuberculous lesions to heal solidly, air must be introduced every two or three weeks, as it is constantly absorbed by the pleura. In well selected cases it is almost miraculous how rapidly reduction in cough, sputum, hemoptysis, fever and pulse rate, and improvement in weight and appearance follow the beginning of the treatment. The resting, compressed condition of the lung is found to promote fibrosis which encapsulates the tuberculous lesions. When the lung is believed to be

healed no more air is introduced and what already is present becomes spontaneously absorbed, thereby gradually causing the lung to expand and to function as it did before treatment was begun.

Pleural adhesions prevent adequate compression of the diseased portions of the lung in about one-half of the cases in which pneumothorax therapy is undertaken. If inadequate compression is persisted in the vast majority of these patients will die. It is in this group that surgery is life-saving. One of several operations may be used, or a combination of them, depending on the individualities of the case. The simplest is resection of one phrenic nerve in the neck under local anesthesia. This causes paralysis of one side of the diaphragm—without any dyspnoea—and a certain degree of rest and compression of the overlying lung, especially of its base. In some cases this operation alone is curative, but in the majority further surgery is required.

Extrapleural thoracoplasty indicates resection of the posterior sections of the upper eleven ribs in two or more stages. This compresses the lung and its cavities and puts them at rest, affording permanent protection against lighting up the tuberculous lesions. In a group of 1,159 patients treated at various clinics in this country and abroad, 61 per cent have been cured or greatly improved by surgery. All had previously been under prolonged sanatorium treatment and their physicians expected all of them to die if surgery were not undertaken.

In a certain few cases extrapleural pneumolysis is the operation of choice. This consists in freeing a part of the diseased lung and both pleurae from the chest wall and filling the made hole with fat, paraffine, muscle, rubber dam or gauze. With two patients who were not proper subjects for thoracoplasty, I have obtained astonishing results by combining phrenicectomy with removal of posterior sections of eight or nine intercostal nerves, thereby causing respiratory quiet and a certain amount of lung compression or relaxation. Performed under local anesthesia with due attention to details of technique, the operation is less formidable than thoracoplasty.

#### BRONCHIECTASIS AND LUNG ABSCESS

These diseases usually exist in combination and are now grouped under the term pulmonary suppuration. This may follow pneumonia in its many forms, operations on the upper air passages, aspiration of

foreign bodies, bacteraemia, suppurative chronic bronchitis, tuberculosis, suppuration of thoracic neoplasms, empyema with broncho-pleural fistula. Diagnosis is based largely on the history and on expectoration of rather large amounts of sputum that usually is foetid, and on a characteristic roentgen ray picture after bronchography with lipiodol. The chief dangers of the condition are the effects of prolonged toxicity, complicating pneumonia, brain abscess, meningitis or hemoptysis.

Both acute and chronic cases, when first seen, should be treated conservatively. A third or more of the acute cases in which the suppuration is nearer the hilum than the periphery, and in which free communication exists between the abscess and a bronchus, become cured without surgical intervention. A strict sanatorium regime should be enforced and at sufficiently frequent periods the patient should be turned on his side or tipped head down over the edge of the bed, in order to excite the cough reflex and empty the lung of its stagnant waste. Weekly or more frequent aspiration of the intrabronchial pus by bronchoscopy may be given a trial if postural drainage proves inadequate.

If conservative treatment fails to effect progressive improvement, more radical measures should be undertaken. Among the simpler are (1) artificial pneumothorax, which serves best for relatively recent suppuration near the hilum; (2) phrenicectomy, especially for lesions in the lower half or two-thirds of the lung; (3) cautery drainage through the chest wall, which is relatively safe when the lesions are peripheral. Parenthetically, intrapulmonary suppurative lesions should never be tapped for diagnostic purposes through the chest wall because of the real danger of infecting the pleural cavity that may not be sealed off by adhesions.

A more radical measure that frequently is useful in chronic cases, is extensive extrapleural thoracoplasty or, exceptionally, extrapleural pneumolysis. The resulting pulmonary compression may cure or greatly improve the patient's condition. In those cases in which the suppuration chiefly occupies the uncollapsible large bronchi, these operations are likely to be ineffective.

If conservative treatment fails and the condition is chronic, dangerous and almost unbearable to the patient because of frequent cough and foul breath and sputum, radical removal of all the suppurating tissue alone promises relief. This is possible,

usually, only when the lesions are confined to one lobe, although Graham has used cautery pneumonectomy for bilateral lesions. The original technique of resecting a lobe with a knife is too dangerous. Safer methods are (1) the several stage removal of the diseased pulmonary tissue with the actual cautery when the overlying pleural cavity is sealed by adhesions and (2) exteriorization of the diseased lobe in the absence of pleural adhesions, and subsequent resection of the lobe.

#### THORACIC TRAUMA

Some injuries to the thorax result in much shock and often in tearing of the lung by the ragged ends of broken ribs. Frequently one pleural cavity fills with a mixture of blood and air, the blood coming from the chest wall or from the lung, and the air through a wound in the chest wall or out of a torn bronchus. As the pleural cavity fills, the lung collapses, which may check the hemorrhage and the passage of air if a pulmonary wound is responsible for them. In exceptional cases, open thoracotomy through an intercostal incision with special rib spreaders, will be necessary to secure a bleeding pulmonary, intercostal or internal mammary vessel.

If the wound in the chest wall remains wide open the mediastinal structures swing from side to side with each inspiration and expiration and may fatally embarrass the function of the uninjured lung. To prevent this, the wound should be closed either by suture after debridement and removal of foreign bodies, or by occlusion with a wet dressing or adhesive strapping. After several days, when pleural adhesions have formed and partially fixed the mediastinal structures, necessity for keeping the wound closed no longer remains.

In some cases of open pneumothorax more and more air is sucked into the pleural cavity, but because of the valvular or sphincter-like action of the wound in the chest wall or lung, cannot escape as fast as it entered. The condition is termed tension pneumothorax and is likely to be fatal from pressure on the mediastinal organs or from mediastinal emphysema, unless prompt provision is made to release the air either by repeated aspiration or by leaving a large needle in place in the pleural cavity, the needle being connected with a rubber tube whose free end is placed beneath a mild antiseptic solution in a jar. Empyema frequently complicates thoracic trauma.

#### DIAPHRAGMATIC HERNIA

Diaphragmatic hernia may be congenital in origin, although the condition may not offer evidence of its presence until years after birth. Abdominal or thoracic trauma may rupture the diaphragm, allowing abdominal organs to migrate toward the relatively lower pressure in the thorax. Or a weakness in one of the normal openings in the diaphragm, usually the oesophageal, may serve as a passage for the thoracic migration of abdominal organs. The lesion usually is left-sided. The liver shields the right diaphragm.

Gastro-intestinal symptoms, notably gastric distress and vomiting, predominate and the diagnosis is definitely made by the X-ray showing parts of the stomach, colon or small intestine in the thorax. Cure may be effected by replacement of the abdominal organs and suture of the diaphragm through a thoracic, abdominal or thoraco-abdominal incision.

Recently Harrington has found phrenicectomy to be a valuable operation in palliating symptoms in patients unfit for radical operation.

#### CANCER OF OESOPHAGUS

This disease is one of the great tragedies of medicine because it is almost invariably first diagnosed in the terminal stage. Technically satisfactory methods for resection of the cervical or thoracic portions of the gullet are available and in about half a dozen instances have been successfully used in operable cases. Although the operation is dangerous it alone offers hope. Diagnosis of an early oesophageal cancer depends primarily on the patient and the physician taking seriously even a seemingly trivial impediment to the passage of food through the gullet. During the first weeks or months of the disease such firm foods as meat may be noticed momentarily to stick, not every time the particular food is swallowed, but only occasionally. At this early stage only two methods of examination are trustworthy in determining whether the symptoms are caused by cancer; benign stricture from scar within the oesophageal wall or from external pressure as by a goitre, aneurism or mediastinal tumor; pharyngeal or oesophageal diverticulum, globus hystericus or cardiospasm. One of these methods is X-ray examination. In the early stages of the disease the tumor is too small to delay the passage of the usual barium mixture through the readily distensible gullet and, therefore, a nega-

tive barium examination in the presence of a small cancer would be likely. Preston Hickey has his patients, while behind the fluoroscope, swallow firm gelatin cylinders impregnated with barium. The first one swallowed is of about the diameter of a lead pencil and the largest about that of the thumb. If the largest passes freely he considers cancer unlikely. The second method of examination is visual inspection of the oesophageal lumen through the oesophagoscope. This is indispensable in the early diagnosis of cancer.

#### TUMORS OF CHEST WALL, MEDIASTINUM AND LUNG

These lesions may be benign or malignant. Many of the benign ones eventually become malignant or kill by persistent growth and pressure on vital organs. The advisability of removing any intra or extra thoracic tumor should, therefore, always be seriously considered.

Primary cancer of the lung, unfortunately, arises more often in the primary bronchi than in the periphery of the lung, metastasis to the hilar glands occurs early and the chance of operative cure is slight. Removal of an early bronchial cancer through the bronchoscope offers a possibility of cure.

Even huge solid or cystic tumors of the chest wall, mediastinal regions and lung are removable with far less risk than would be anticipated. The results of surgery in these cases are brilliant. When diagnosis is in doubt, exploratory thoracotomy through an intercostal incision with rib spreaders and positive pressure nitrous-oxide-oxygen anesthesia is almost as safe as an exploratory laparotomy.

#### HEART

It was conclusively demonstrated during The War that the heart withstands surgical manipulation with remarkable tolerance. It was not so many years ago that physicians believed that death must inevitably follow the mere touching of the heart. Foreign bodies may be removed from it and wounds in its walls may be sutured. Cutler has successfully incised a mitral valve leaflet of a patient with mitral stenosis; Tuffier manually dilated a stenosed aortic orifice and Souttar a stenosed mitral orifice. In each case great clinical improvement followed. The technique of incision of a stenotic mitral valve is now being developed experimentally. The present mortality rate is prohibitively high.

It is well known that the pericardium

may be drained for suppurative pericarditis and that in certain cases of adhesive pericarditis most of the excessive load on the heart may be lifted by simply removing the overlying ribs and cartilages with their periosteum, or even by peeling away the thick scar tissue that envelops the left ventricle—a cardiac decortication.

#### THYMOPHYSIN IN OBSTETRICS

L. W. HAYNES, A. B., M. D., F. A. C. S.  
DETROIT, MICHIGAN

Only a few years ago, pituitrin was given a warm welcome by obstetricians. It was used in comparatively large doses and with but small regard for the stage of the labor. Soon, however, reports began to appear in the literature of unpleasant symptoms and at times even serious results as a consequence of its indiscriminate use. So, at the present stage of our knowledge, we believe there is a definite, selective time for its administration, as well as a limit to the number of doses and the amount given at any one dose. It is now pretty generally agreed that with but few exceptions, and then in minute doses, pituitrin is not a safe drug to give a patient during the first stage of labor.

Recently there has come into use in some of the European countries a product called "thymophysin," which gives promise of fulfilling our hopes for pituitrin in the early days: namely, that power of stimulating uterine contractions, with perfect safety, during the first stage of labor.

Thymophysin is a combination of hypophysis extract and the extract of the thymus gland. It contains but a small amount of pituitrin, but the potency is increased by the addition of the thymus extract. The experimental work on guinea pigs was done by Temesvary, who claimed that the experimental basis of the preparation lies in the fact that thymus extract prevents tiring of the uterine muscles, which is always the result of strong contractions provoked by pituitrin.

The first report of clinical work with the preparation was made by Professor E. Graff of the Women's Clinic, University of Vienna. His work was started early in 1926, and it was my privilege during the summer of that year to follow through the labor and delivery of a number of patients to whom thymophysin had been given. Professor Graff was very enthusiastic re-

\* Read before the Detroit Obstetrical and Gynecological Society, April, 1928.

garding his results at that time and has become more and more so as his already large series of cases has increased. Practical results obtained would seem to warrant the statement that this preparation can be administered in all stages of labor without fear of harm being done to mother or baby. The tetanic contractions at times seen following the use of pituitrin have never been noted with thymophysin.

We wish here to report the results of our first fifty cases with this preparation. The solution is injected intramuscularly and should be given with a hypodermic needle at least one inch in length. Some of our patients complain of pain at the site of injection, especially if the injection is superficial. The ampoules as put on the market contain about two c.c. We have never seen any indication that the two c.c. dose is too large, although there has been mentioned an instance where two and one-half c.c. caused such severe labor pains that morphine was necessary as a sedative. We have, in several instances, repeated this dose at the end of one hour where the contractions are diminishing and consider this good routine. We have used it several times outside of this series in the third stage of labor, and believe the results were not as satisfactory as with the use of pituitrin.

The average age of our patients was slightly over twenty-five years. Of the para-one, there were thirty-three; para-two, fifteen; para-three, two. Thirty-four of these women were at term and were in the first stage of labor when they entered the hospital. Thymophysin was not given unless a primary or secondary inertia had developed. The earliest any injection was given was fifteen hours, and extending up to forty-eight hours, the maximum time of injection after the beginning of labor. In this particular series of thirty-four, we had eight breech presentations, seven occiput posteriors, one transverse, two old primiparas, and five of premature amniotic rupture. The dilatation varied from one to six cm. In thirty-one of these cases, the results were very satisfactory. In from five to fifteen minutes, with an average of eight and one-half, there was noted a marked increase in the strength of the contractions as well as the frequency. In each case of this classification the labor continued on to delivery, or to complete dilatation of the cervix, in an unusually short time. The shortest time from the injection to delivery was twenty-one minutes, and the longest, three hours. The

average time was one hour and forty-eight seconds. Graff, in his report in a much larger series, says that the average completed delivery took place within three hours. He may be including also the delivery of the placenta, which we did not take into consideration. The remaining three of the thirty-four who were in the first stage of labor did not go on to delivery or to complete dilatation as a result of the injection of thymophysin. Two, however, did show an increase in frequency of pains for one hour, and probably the result would have been different had a second injection been given at the end of one hour, as is now our routine procedure in such cases. We call these three cases failures. Graff found thymophysin to be successful when given in the first stage of labor in 90 per cent of his cases, while ours, in this same group, was 91.1 per cent.

It is claimed that this preparation is too weak to have any effect in cases of abortion and premature birth. However, we gave it to four cases of toxemia, two to three weeks before the expected date, hoping to bring on labor, and were successful in two of these.

Our results were most interesting in a slightly different group—namely, the toxic cases at, or even a few days before term. In this group there were seven. Two had had no previous medication. Fifteen minutes after an injection of thymophysin, one began to have uterine contractions and delivered in about three hours. She was a multipara. The other seemingly showed no signs of labor. The remaining five of this group had all had the usual run of quinine and castor oil one or two days previous to the thymophysin and had not gone into labor. One had had the oil and quinine repeated twice and one had had four injections of small doses of pituitrin without result. Both of these latter, and one other, readily started in labor following the injection of this preparation.

The last group is made up of five women whom we considered were from ten days to three weeks over their expected date, and had no signs of labor. Four of the five had labor pains readily and delivered in a comparatively short time. The fifth one did not go into labor for several days.

In the entire series there were four foetal deaths, but certainly none can be attributed to thymophysin. One baby died thirty-six hours following delivery, and post-mortem examination showed an extensive cerebral hemorrhage. This case

was one of the failures noted above in connection with injection given during the first stage. The baby was not delivered for twenty-four hours following the injection. Later, morphine was administered and in the birth room, with complete dilatation, several injections of pituitrin. The second death is accounted for by a prolapsed cord which was present at the time and one of the reasons for giving thymophysin. Both of the other foetal deaths were in cases of toxemia and the death was diagnosed before thymophysin was given.

In conclusion, we believe our work substantiates the statements which have been made for this new preparation. The successes in the first stage are rather amazing. They are more immediate and regular than at any other time. In all kinds of delays of delivery, the injection of thymophysin caused strong and continued labor pains which led to spontaneous delivery or to complete cervical dilatation, where surgical intervention was possible in a comparatively short time. The results are less regular in other stages of pregnancy and labor, but in selected cases should prove of considerable value in the induction of labor. The work so far shows it to be harmless to both mother and baby.

#### REFERENCE

Klinische Erfahrungen mit Thymophysin—Graff-Zentralblatt für Gynakologie, November, 1927.

#### MULTIPLE SEBACEOUS CYSTS OF THE SCROTUM—REPORT OF A CASE\*

HAMILTON COOKE, M. D.  
(Fellow in Surgery, Mayo Clinic)  
ROCHESTER, MINNESOTA

Caylor found, in an analysis of 236 cases of sebaceous cysts in which operation was performed, that in only two cases were the cysts on the scrotum. These cysts were apparently single. The literature on multiple sebaceous cysts of the scrotum consists principally of single case reports. The most complete contributions are those by Churchman, Daniel, Galippe, Gray, Sheen, Sutherland, Taylor and Wetherby. All the reported cases were observed for only a short time. The condition of the patients several years after the primary examination or operation was not ascertained. The case presented here has been under observation for about two and a half years.

#### REPORT OF CASE

In October, 1925, I was consulted by a married man aged forty-four, without children, who had

had gonorrhea at the age of eighteen. His present complaint was numerous lumps on the scrotum. Since childhood the scrotum had been sensitive and easily irritated. At the age of twenty he had first noticed numerous small granules under the skin of the scrotum. These granules increased intermittently and irregularly in size, gradually producing a "shotty" or lumpy condition. Occasionally one of the larger lumps would rupture with the extrusion of yellowish-white, smooth waxy semi-solid fluid. After rupture the cavities healed readily without complications. In 1919 a rapidly enlarging tender lump about 10 mm. in diameter was removed from the posterior surface of the left auricle. This proved to be a sebaceous cyst. In 1922, eighteen years after the condition was first noticed, two lumps on the scrotum had reached the size of "a small walnut." A physician was consulted who removed the lumps and made a serum from the contents. Six subcutaneous injections were administered. The gradual enlargement of the remaining lumps was not arrested.

The patient appeared to be well developed and well nourished. On the posterior surface of the right auricle there were three hard sebaceous cysts 5 mm. in diameter. On the posterior surface of the left auricle there were two similar cysts. The general examination was negative. The penis and testicles were normal. Distributed diffusely over the enlarged scrotum were 104 lumps. The lumps were more numerous and larger on the anterior surface, especially on the left side near the median raphe. On palpation the scrotum felt shotty. The size of the lumps varied from 2 mm. to 12 mm. in diameter. On stretching the scrotum they appeared as subcutaneous white marble-like masses. Examination of the urine and Wassermann reaction were negative; erythrocytes and leukocytes were normal; the hemoglobin was 85 per cent. A diagnosis was made of multiple sebaceous cysts of the scrotum.

Four of the largest lumps were removed under local anaesthesia. The largest of these was firmly attached and to remove it completely without rupture it was necessary to excise a small strip of the overlying skin. The incisions healed completely in ten days. Each lump was hard and oblong, but only about half the size it appeared when palpated through the skin. The exterior



Fig. 1.—Three large cysts removed in 1928.

surface was smooth, shiny and pearly white. On section the lumps consisted of a thin wall which was distended by a yellowish-white caseous material.

By January, 1928, several cysts had increased considerably in size. The three largest, about 8 mm. in diameter, were removed in the same manner as in 1925 (Figs. 1 and 2). The incisions

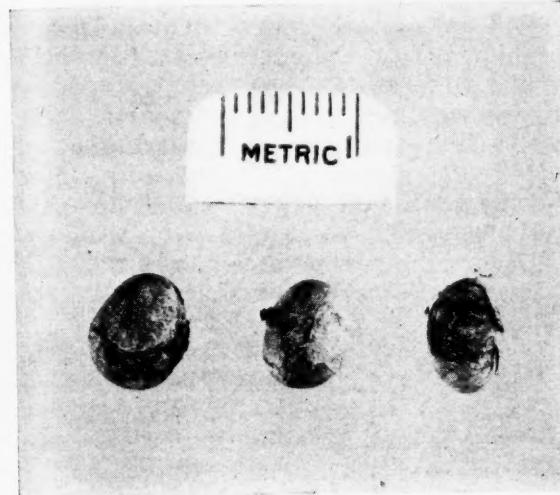


Fig. 2.—Cysts after removal (x2).

healed in eight days. The cysts were identical in appearance and contents to those previously described. Two months later there had not been a recurrence or a change in the size of the remaining cysts.

#### BIBLIOGRAPHY

1. Caylor, H. D.: Epitheliomas in Sebaceous Cysts. *Ann. Surg.*, 1925, lxxxii, 164-176.
2. Churchman, J. W.: Atheromatous cyst of the scrotum. *Johns Hopkins Hosp. Bulletin*, 1905, xvi, 264.
3. Daniel, Z. T.: A case of molluscum sebaceum of the scrotum. *Richmond and Louisville Med. Jour.*, 1874, xvii, 311.
4. Galippe, V.: Remarques sur des petites tumeurs développées dans les glandes sebacees du scrotum. *Compt. rend. Soc. de biol.*, 1891, iii, 98.
5. Gray, G. A.: A case of multiple sebaceous cysts. *U. S. Navy Med. Bulletin*, 1918, xii, 722.
6. Sheen, Alfred: Selections from my casebooks. IV. Pedunculated sebaceous tumours of the scrotum. *Brit. Med. Jour.*, 1895, ii, 9-12.
7. Sutherland, L. R.: Multiple sebaceous tumours of the scrotum. *Tr. Glasgow Path. and Clin. Soc.*, 1897-1898, vii, 20-22.
8. Taylor, R. W.: Cases of sebaceous tumors of the penis, scrotum, and head with remarks on their accidental degeneration. *Jour. Cutan. and Genito-Urin. Dis.*, 1890, viii, 379-382.
9. Wetherby, B. J.: Multiple sebaceous cysts of the scrotum; report of a case. *Tr. Luzerne Co. Med. Soc.*, 1903, xi, 135.

#### SURGICAL TREATMENT OF HYPERTHYROIDISM

CLARK D. BROOKS, M. D.  
DETROIT, MICHIGAN

Hyperthyroidism has been for a long time a much discussed subject, and physicians are still debating as to the best method of its treatment. Meanwhile, as the debate continues, we believe that in

the number of patients suffering from this malady there is a marked increase.

Twenty years ago the relatively few who suffered from hyperthyroidism usually consulted the neurologist, or fell to the care of the general medical practitioner, who often had the neurologist in consultation. But after a few years it was found that many of these cases responded very unsatisfactorily to medical treatment, even when this was administered under the best medical supervision. They would improve for a time, but on their return to work they would experience a recurrence of symptoms; and with the repeated exacerbations of tachycardia, loss of weight, muscular and nervous weakness, they usually found themselves less able to withstand the strain of even the most careful living.

The myocardium is able to perform its functions with more or less success through severe acute infections, but it is under chronic conditions as long continued hyperthyroidism, secondary anemia or nephritis that it suffers serious impairment. And during the past ten or fifteen years physicians, when they found hyperthyroidism to be the disturbing cause, have referred the cases more and more frequently to the surgeon. Even in the early efforts against this disease this procedure seemed to offer more hope than medical treatment alone.

The profession owes a debt of gratitude to those surgeons who pioneered in thyroid surgery; for in this early period the physician who referred such patients to the surgeon had to show the courage of conviction, particularly when the outcome was often a matter of grave doubt and uncertainty.

In this period of surgery of the thyroid, mortality and morbidity were due chiefly to a very few factors. First, patients were operated upon when in a period of crisis, before they had had sufficient rest in bed or appropriate pre-operative medical care; second, a wrong type of operation was often performed—i. e., an operation was performed in one stage which would better have been performed in several; and third, not enough gland was removed. It was a very common error to remove but one lobe of a diseased gland, or even part of one lobe, or to perform a ligation of one pole and not advise further operation such as thyroidectomy, later.

As surgeons gained experience, they learned to correct these technical factors and errors of surgical judgment. They

found that by careful selection of time and by good team work of the physicians and nurses in attendance they could bring their patients into a very safe physical and mental state for operation. And in addition, they found that the danger of hemorrhage, and injury to the recurrent laryngeal nerves and parathyroid glands was lessened by the help of trained assistants and a definitely planned technic. Then again they found that much more of the thyroid should be removed than was formerly supposed.

Many other factors have brought about other changes for safety, among them being the use of laboratory methods, greater care in general examination, local anesthesia, combined with gas or ethylene-oxygen anesthesia. And, too, the position of the patient on the table, the preliminary careful examination of the vocal cords, are

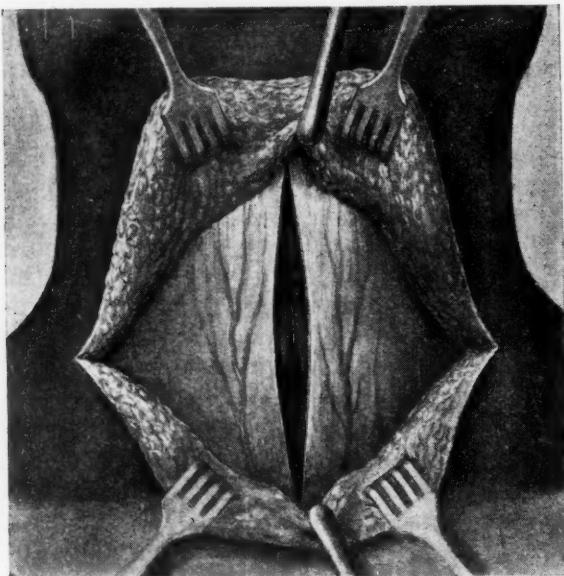


Figure 1  
The skin and subcutaneous tissue are well dissected back and midline incision made through the fascia extending from the thyroid cartilage to the sternum, the muscles being split and retracted. (With large goiters the fascia and muscle are cut transversely.)

some of the many important details that should always be observed. To these we should add economy in time, as patients in serious condition might stand well an operative procedure of one-half hour unaccompanied with hemorrhage, when they might not survive an operation of twice that time, with even moderate bleeding.

Iodine has been one of the methods of treatment of diseases of the thyroid with or without hyperthyroidism for over a hundred years. Many of the older physicians had a favorite iodine ointment which they prescribed with very favorable results in the care of many of their goiter

patients. They often combined this treatment with iodine, usually sodium iodide by internal administration. There is no way that one can estimate the good or harm of such administration; for after its long continued administration some of these cases would improve and never again consult the physician, but continue to use iodine, and more than that; they would constitute themselves a committee of one to pass on the remedy to their friends who happened to have large necks. But it has long been recognized, through the investigations of Marine and others, and long clinical experience, that many goiter patients, with mild nervous symptoms, are improved after taking iodine. Now that the commercial salt manufacturer is entering the field, even those who may not need iodine get it morning, noon and night. It will be very difficult for us to prove to ourselves or to our patients whether or not its promiscuous use even in small quantities over a long period of time is harmful or beneficial.

Although iodine was the most common medical agent which was given to all types of goiter patients, hundreds of others of questionable value have also been used. X-ray served as an agent to lessen the size of the gland, and was later combined with radium to combat hyperthyroidism. It was not uncommon, even a few years ago, for the patient to undergo from one to five years of such care, with or without X-ray treatment, before being advised to resort to surgery. It is very obvious that in any such long medical regime the natural resistance of the patient will be very much lessened. The blood picture usually shows an increase in the mononuclear cells, with moderate anemia. In addition, there is a cardiac hypertrophy, the hypertrophy being greater, in our experience, in the cases of adenomatous goiter with hyperthyroidism, than in the primary or exophthalmic types. Also marked changes in the liver, kidneys and adrenals occur in long standing hyperthyroidism.

We believe that part, at least, of the bad results in the early surgery of the thyroid associated with hyperthyroidism was due to these serious constitutional symptoms incident to the long continued hyperthyroidism and delayed operation. And the improvement in the condition of patients with hyperthyroidism today is due to the following facts: The co-operation of the medical attendant with the surgeon, the type of operation, the shortening, through earlier operation, of the

period of disability, the suiting of the operation to the patient and not the patient to the operation, and the careful supervision of iodine. We believe that in these cases we should have a very definite plan to follow.

**Early diagnosis:** Patients are presenting themselves for examination much earlier than in former times. The education of the laity is such that he comes in earlier to learn the cause of his rapid heart, weakness, or loss of weight. Hyperthyroidism should always be considered as a factor in the above symptoms, and a careful examination, with a carefully written clinical history, combined with labora-

made here as an aid in diagnosis, in addition to repeated basal metabolic rates. Usually we find that the trachea is not in the median line, being pushed to one side by the adenomatous goiter. It is quite common for cases of retrosternal goiter, associated with hypothyroidism, to have associated cardiac hypertrophy, directly due to the extra work the heart is required to perform over months and years of time. We wish especially to call attention to the fact that many of these patients are treated for years with digitalis, on a basis of incorrect diagnosis.

#### DIGITALIS

We believe that digitalis is distinctly contraindicated as a routine in the treatment of hyperthyroidism. It should be used with great care even in auricular fibrillation, when the fibrillation is due to hyperthyroidism. The tachycardia is a symptom, and the associated heart disease is due to hyperthyroidism, which causes the patient's disability. The myocardial changes and edema following long continued hyperthyroidism can best be avoided, after very careful digitalization when necessary, by early operation. There is no doubt in the minds of surgeons of experience that patients undergoing operation for hyperthyroidism who have been taking digitalis for a long time, are distinctly poorer risks than those who have not had this drug. Rest in bed, bromides, iodine and ice over the cardia and goiter will, in our opinion, be the method of choice in the treatment of tachycardia with or without fibrillation, when preceding or following an operation, with very careful digitalization for a short period when indicated.

It would seem that if digitalis should be used it would be best to reserve its use for cases that have been operated upon, or for cases of fibrillation, observing the utmost care. We think that patients should not be operated while taking digitalis, and that when it has been taken, several days should elapse before operation.

It is quite surprising how patients will recover after the removal of an adenomatous goiter associated with hyperthyroidism, even in the presence of cardiac hypertrophy and fibrillation. Patients with cardiac complications and hyperthyroidism should remain in bed from ten days to three weeks before operation, and the operation should not be performed in the presence of edema. But many patients with edema secondary to thyrotoxicosis

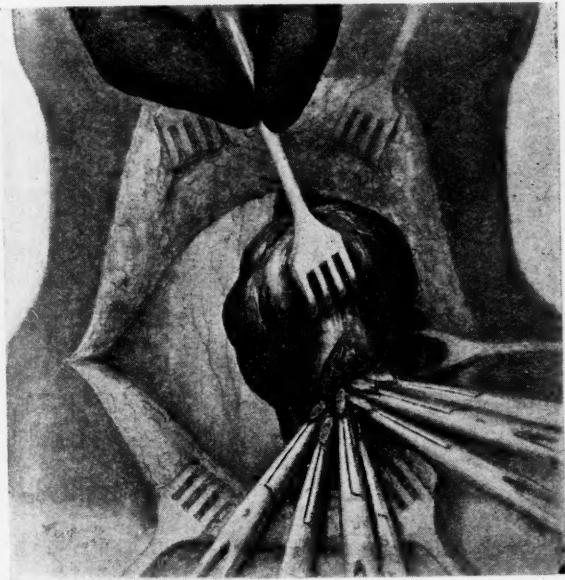


Figure 2

The goiter is manipulated with the aid of a sharp retractor. Small forceps are used to take small bites of the capsule and thyroid tissue, keeping away from the posterior capsule of the gland.

tory findings should be made. In young people, especially those with a familial history, the differential diagnosis of acute miliary tuberculosis merits our first consideration. This is usually not difficult when routinely a careful physical examination is made, combined, if diagnosis is questionable, with medical consultation and X-ray of the chest, also repeated basal metabolic rates. We do not believe that the basal metabolic rate of itself should be relied upon to tell us when to operate, but should be used only to confirm or aid in diagnosis. And here we wish to call attention to the cases of retrosternal goiter associated with moderate hyperthyroidism. In many cases of this type the position of the thyroid is such that mistakes are made in diagnosis. It is essential that a carefully made X-ray examination be

will become good surgical risks after good medical treatment. A well planned operation can safely be performed in the majority of cases even with cardiac complications when we have evidence that the heart condition is secondary to the hyperthyroidism. Such operations should, of course, be performed with dispatch, using gas analgesia and local anesthesia, but they should never be performed until the patient has been under good pre-operative



Figure 3  
Enlarged heart due to chronic hyperthyroidism. Patient was treated for heart disease for ten years. Marked improvement after thyroidectomy.

care. In some cases hemi-thyroidectomy will be the operation of choice. We have operated upon a number of these bad risks with remarkable results. After these operations patients should have expert medical care.

#### LUGOL'S SOLUTION

As has been stated, the use of iodine is not new; but it was upon the recommendation of Plummer in 1922, that it should be used routinely in primary hyperthyroidism or exophthalmic goiter cases before and after operation. This was a definite and distinct advance in both the factor of time saved for the patient and increased margin of safety in severe cases with almost the elimination of post-operative crisis, familiar to experienced surgeons. While the use of Lugol's solution was recommended in the case of Graves disease, it was not considered advisable to use this agent in the case of adenomatous goiter associated with hyperthyroidism. General belief was that in this first type we were dealing with an altered or perverted secretion, and in the latter type

with an excessive amount of normal secretion. Hundreds of experienced surgeons found that the Lugol's solution worked like magic, especially on the very sick patient; and just as certain was it that the post-operative hyperthyroidism did not occur, or if by chance it did, the giving by mouth or by hypodermoclysis from twenty to sixty mms. of Lugol's solution effected an abatement of the crisis. For a few months we give Lugol's solution to the Graves disease class, both preceding operation and immediately after, and at times for a few weeks after operation, with extremely satisfactory results to all concerned. However, in 1923 we had several cases of the mixed types; that is, adenoma for a year or more, and then a sudden onset of symptoms of Graves disease, with marked staring eyes, if not exophthalmus. In these cases iodine acted as well as in definite primary or exophthalmic types. After a few months we began using Lugol's solution as a post-operative measure in the adenomatous goiters associated with hyperthyroidism, with the result that in these cases we no longer saw marked post-operative hyperthyroidism. After a few months of this experience, we began about three years ago to use Lugol's solution both pre-operatively and post-operatively in all toxic goiters with most satisfactory results. It would seem that the action of iodine neutralizes the thyroxin molecule which in clinical experience acts the same, whether in the primary exophthalmic case or the case of adenoma associated with hyperthyroidism. We have noted in our cases an increasing colloid in patients after iodine administration.

The writings of Graham and others, during the past few years, indicate the same results. We believe that Lugol's solution should not be considered in any way a cure for hyperthyroidism, and that it should be given only a week or two before operation, with post-operative administration as necessary. Physicians often see patients who have mild symptoms of hyperthyroidism, often secondary to mental or nervous strain, from changing one's occupation, or after severe illness or family bereavement, or in cases of extreme effort. Most of such patients will not need surgery, but great care is needed to give them good medical advice. A few of these cases will be found to have low metabolic rates—as low as minus five, and are often helped by a few small doses of either Lugol's solution or thyroid extract.

Such treatment, however, should never be given except directly under the advice of the physician.

Patients who have had long continued iodine administration combined with radiotherapy or digitalis we feel are distinctly bad risks for operation, and their recovery is not as complete as those who have had iodine, but no digitalis nor radiotherapy. In some cases of primary hyperthyroidism we have used thyroid extract immediately before operation, with distinct benefit, as a rule giving two to three grains in one dose.

The metabolic test we do not consider a

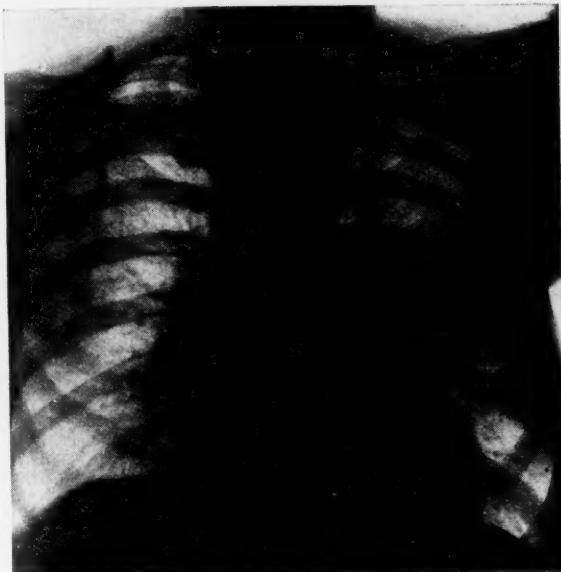


Figure 4

Enlarged heart due to chronic hyperthyroidism. Patient treated for eight years for heart disease. Marked improvement after thyroidectomy.

true indication of operability. Some patients with relatively higher rates will be in much better condition for operation than others with lower rates. Ordinarily patients who cannot relax well in bed nor eat and sleep well are not in good condition for operation, no matter what the basal metabolic rate may be, and blonde patients are distinctly poorer risks than brunettes with the same metabolic rate.

In a large general hospital it will not be convenient or possible to perform operations in the patient's room, as advocated and practiced by Crile; but if we prepare goiter patients properly, and carry expert team work to the operating room, the result will be almost as satisfactory. It is obvious that patients should not be allowed to wait in the operating room on account of delay on the part of surgeon and associates. It is very desirable that the anesthetist have a little visit with the patient

beforehand and accompany him to the operating room. Gas-oxygen anesthesia or analgesia is the anesthetic of choice, combined with local anesthesia, using one-half of one per cent procain or novocain. The gas analgesia should always be given by an expert, and should begin the moment the patient is on the operating table, or in an adjoining room, if available. The local anesthetic, novocain or procain, should not be started until the patient will be unaware of the needle insertion. Usually from two to four ounces will be sufficient for the operation. If some of the local anesthesia is injected into the gland beneath the capsule it will aid very materially in the operation.

It is obvious that experienced assistants are part of the operating team, and when these are not available we question the desirability of any thyroid operation. Hemorrhage must be avoided by careful technique, as the sick thyroid patients will not do well if the operation is accompanied with hemorrhage. We have found it very desirable always to remove one lobe first, and to tie the vessels on one side completely before making an examination of the opposite lobe. By this means the danger of a forcep becoming unclamped is eliminated, and the danger of tracheal pressure or collapse is lessened on account of the extra room given by the removal of the first lobe. We have not had any permanent injury to the recurrent laryngeal nerve. This is avoided by keeping well up on the lateral capsule, and by using small clamps. At times, in the case of very sick patients, it may be found advisable to perform a hemi-thyroidectomy at this step, and remove the other lobe within 48 hours or later. By such a plan of technic combined with the use of all modern methods and skilled anesthesia, operations on the thyroid, accompanied by hyperthyroidism, have become very safe. And it is to be remembered that a larger part of the gland should be removed than was formerly done. We believe that in cases of very severe symptoms about nine-tenths had better be removed, as part of the morbidity that follows goiter operations is caused by not removing enough of the gland.

#### RECURRENCES

Yet, in spite of removing more and more of the gland, every surgeon of experience will encounter some recurrences. A certain number of patients will have recurrence of symptoms appearing in from a few weeks to months after the primary

operation. In our own series we noted recurrences in nine patients, in a total number of 500 cases. This is relatively very few, and now that we do practically no ligations, and but a few hemi-thyroidectomies, very few patients undergo more than one operation. All of our cases of recurrence have been patients who had rapidly developed hyperthyroidism before the first operation. In addition to the nine cases of recurrent goiter in our series, we have operated upon seven cases who had had operations elsewhere, several more than six years before, with relief of symptoms until a few weeks or months before presenting themselves for examination. When recurrences do take place, with return of all symptoms of the former disease, even though not so marked as a rule, little time should be lost in medical treatment. If the symptoms do not subside and remain quiescent after a few weeks of iodine, rest, and so forth, the offending lobe of regenerated thyroid should be radically removed. A careful check up should again be made to remove all evidence of focal infection. A persistent metabolic rate indicates that not enough thyroid has been removed. And in this connection, we think that it is highly important that a thyroid operation should never follow too soon after tonsillectomy or removal of teeth, but that from six weeks to two months should elapse before operation.

#### POST-OPERATIVE TREATMENT

In severe cases, in addition to morphine freely and ice to precordium and to the head, we advise Lugol's solution from m 20 to 30 by hypodermoclysis in 1,000 c.c. normal saline. This solution is given deep in the axillary region, not in the breasts, and we advise 100 c.c. every hour, in ordinary cases, and the needles are allowed to remain for 24 hours or more. In addition to this, Lugol's solution MX q 4 hours is given for a few days, with a large amount of fluids by mouth, and morphine sufficient for comfort. We have had but few cases of post-operative hyperthyroidism since this regime was started over three years ago. During this time the number of cases operated upon has increased, and with it the degree of hyperthyroidism. After three or four days the Lugol's is reduced to MV tid-pc. The patients usually leave the hospital before ten days, very much improved. In some cases we advise the family physician to continue Lugol's solution for a few weeks, giving about MV daily. The twenty to thirty minute opera-

tion must succeed the operation of a longer period, if success is to be attained.

#### RESUME OF FIVE HUNDRED CASES OF GOITER WITH HYPERTHYROIDISM

Adenoma with hyperthyroidism	389 cases
Primary exophthalmic goiter	111 cases
Females	428
Males	72

	Av. age	Youngest	Oldest
Adenoma with hyperthyroidism	37 yrs.	11 yrs.	70 yrs.
Primary exophthalmic goiter	33 yrs.	9 yrs.	65 yrs.

#### Average duration of symptoms:

Adenoma with hyperthyroidism	1 yr. 7 mos.
Primary exophthalmic goiter	10 mos.

#### Average metabolic rate—

	Plus	Plus	Plus
Adenoma with hyperthyroidism	37	4	100
Primary exophthalmic goiter	52	9	150

#### Type of Operation:

Bilateral resections	464 cases
Lobectomy	33 cases
Ligation (all before 1923)	3 cases

#### RECURRENT CASES

Seven cases of primary exophthalmic goiter. Four cases had one previous operation from four months to two years before.

Three cases had two previous operations from five months to eight years before.

Two cases of adenoma with hyperthyroidism operated on 11 and 12 years before.

We also operated on seven cases of adenoma with hyperthyroidism who were operated on elsewhere.

#### COMPLICATIONS

Two cases of post-operative hemorrhage with recovery.

Four cases of parathyroid tetany. Two cases transient—complete recovery.

Two cases still under observation and on parathyroid extract at times.

#### OPERATIVE MORTALITY

20 cases	4%
----------	----

In the twenty cases there were eight cases of adenoma with hyperthyroidism, ten cases of primary exophthalmic goiter, and two cases of recurrent primary exophthalmic goiter. All cases were toxic, two cases died after ligation, five cases had marked cardiac enlargement. Several cases had had prolonged digitalis and X-ray treatment.

#### SUMMARY

There has been a distinct advance in the surgery of the thyroid during the last five years, with lessening mortality and morbidity. Surgical success will best be obtained by shorter medical treatment, i. e.,

by avoiding long continued Lugol's solution and digitalis. If either Lugol's solution or digitalis is given, patients should be carefully checked by the physician and the dose varied according to the symptoms. In well advanced cases of hyperthyroidism, either primary or associated with adenomata, it is well to remember that lowered metabolic rate does not mean that cure is effected. A persistence in long medical treatment is the chief factor in the morbidity and increased mortality after such treatment. Radium and X-ray have a questionable part in the pre-operative care of patients of the ordinary case of hyperthyroidism; for while metabolic rates may be lowered, the operation is much more difficult after such treatment, and when the treatment extends over a long period of time, serious injury to the heart follows.

Patients should be instructed to have regular examinations at stated periods after operation for hyperthyroidism, and iodine is not given after two or three months, unless there is special reason for such. A metabolic reading should be made after operation; at least two within the first year, and one each year for three or four years when possible.

#### SURGICAL PROCEDURES IN CARCINOMA OF THE LARGE BOWEL\*

FRED W. RANKIN, M. D.  
Division of Surgery, Mayo Clinic  
ROCHESTER, MINNESOTA

The incidence of carcinoma of the colon and rectum combined is almost identical with that of carcinoma of the stomach. The overwhelming preponderance of malignancy in the large intestine as compared with that in the small intestine is definitely borne out in the experience of all surgeons. Some years ago a report from the Mayo Clinic showed, according to necropsy data from a number of clinics on many thousands of cases, that of all cases of carcinoma of the entire intestinal tract only about 3 per cent had invaded the small bowel. In the Mayo Clinic there were records of 24 cases of carcinoma of the small intestine as compared with 1,822 of the large intestine and rectum, and 1,689 of the stomach.

The accuracy of diagnosis of lesions of the gastro-intestinal tract has been more materially influenced by advances in roentgenologic technic during the last ten years

than by any other factor. While it is true that a higher degree of accuracy exists in the interpretation of roentgenograms of gastric lesions, it seems reasonable to assume that increasing experience will promote developments which will bring the roentgenologic diagnosis of colonic lesions to the same level. Certainly, more routine study of the colon by the employment of the barium enema is indicated in vague abdominal disorders of indeterminate origin, and no doubt such study will result in the detection of many lesions which otherwise would not be suspected until the disease had become widespread.

#### CECUM AND SIGMOID MOST FREQUENT SITE

The two mobile terminal segments of the large bowel, the cecum and the sigmoid, are most frequently invaded by carcinoma and the symptoms produced by the neoplasm differ markedly; likewise, the pathologic type and grading of the growths and the procedures indicated for their extirpation are distinctly different. The symptoms of carcinoma of the right half of the large bowel, which, strictly speaking, includes the hepatic flexure and proximal half of the transverse segment, revolve around a group of phenomena relating to physiologic disturbances. In the main, the presence of a hitherto unsuspected tumor or of profound anemia unexplained by visible loss of blood, or an indefinite type of ailment simulating chronic cholecystitis or chronic appendicitis, are the three usual syndromes of malignancy in this portion of the bowel. On the other hand, obstructive phenomena or blood on the stool or in the stool, and occasionally the presence of a slow-growing tumor, represent the typical and characteristic symptoms of carcinoma of the left side of the colon. It should be emphasized that loss of weight, cachexia and general symptoms of wasting due to the carcinoma, particularly if it is situated in the distal segment of the bowel, are evidences of an advanced stage of the disease, and radical treatment can rarely be carried out.

The distinct functions of the two segments of bowel, and differences in type of growth customarily found in each constitute the reason why the symptoms differ. The right half of the colon is the absorbing half comparable in function to the small bowel with which it has a common embryologic beginning. From the papilla of Vater to the middle of the transverse colon the large intestine develops with the

\* Read before the Wayne County Medical Society, Detroit, Michigan, March 6 and 7, 1928.

small intestine from the midgut, and the function of this whole division is digestion and absorption. Beyond the middle of the transverse colon the large bowel is delivered from the hind-gut and its duty is one of storage. The two halves are not only different anatomically, so far as the structure of the wall of the bowel is concerned, but they derive their blood supply from different sources, the superior mesenteric supplying the digestive or absorptive part of the gastro-intestinal tract and the inferior mesenteric supplying the distal half.

#### DIFFERENCES IN PATHOLOGY

Pathologically, the growths in the right half of the colon present large, elevated, ulcerating surfaces, covered generally with stubby protuberances, bleeding easily, and lending themselves readily to infection, but they rarely produce obstruction. Mainly, they affect the normal physiologic equilibrium by causing intoxication, desiccation and anemia from absorption and derangement of the function of the mucous membrane. They seldom encircle the whole circumference of the colon and acute or even subacute obstruction is rarely a factor. On the other hand, in the distal segment of the large bowel growths usually invade the lateral wall and show a tendency to encroach on the circumference of the lumen, producing diminution in its size followed by characteristic symptoms of chronic, subacute or even acute obstruction. Acute intestinal obstruction secondary to malignancy is an extremely grave condition and occurs in approximately 5 per cent of all cases of carcinoma of the large bowel. Unless it is relieved a serious, acute lethal condition is imposed on the chronic malignant state, demanding immediate intervention and the exercise of careful surgical judgment. Usually this acute obstruction is ushered in out of a clear sky without premonitory warning, the presence of the malignant lesion being entirely unsuspected. The chances are six to one, according to Burgess, that the lesion is in the left side of the colon if it is the etiologic factor to be considered.

#### AFFECTING OPERATIVE MORTALITY

Operative mortality differs in the different segments of the colon depending on different factors: (1) anatomic conditions such as blood supply and mobility; (2) the stage of the disease and the grade of malignancy; (3) the rapidity of growth and presence or absence of metastasis; (4) fixation of the growth which may or may

not be inflammatory and which determines the extent of operative procedures, and (5) the degree of obstruction.

It is a good working rule that all carcinomas of the distal segment of the large bowel should be treated by a graded procedure, and while this rule probably applies likewise to the proximal segment, our experience does not warrant the assertion that all right-sided carcinomas of the colon should be operated on in multiple stages. Recently, however, in the Mayo Clinic the tendency has been to make an ileocolostomy between the terminal ileum and transverse colon for carcinoma of the right side of the colon, and at the end of two weeks to undertake the resection.

That this has resulted in lowering the mortality rate is unquestionable, and probably the procedure will continue to be followed. When the right side of the colon is resected in one stage, provision must be made for the relief of tension from gas and this may be accomplished either by bringing the end of the colon up to the abdominal wall, leaving the purse-string sutures as a guide for future puncture, or by making an enterostomy in the terminal ileum about 40 cm. from the line of anastomosis. I have found the latter procedure extremely satisfactory and I use it as a routine in one-stage operations on the proximal colon. In about one case in five it will be necessary to open the tube on from the fourth to sixth day for the relief of distention from gas; this overcomes the ballooning of the intestine, relieves the symptoms, and protects the suture line. The tube drops out of its own accord about the sixteenth or seventeenth day if it has been inserted according to the Witzel technic. I have not observed an instance of a fistula persisting following its removal. The mortality from carcinoma of the colon is due not so much to the open operation employed in making the anastomosis as it is to the permeability of the wall of the colon which is markedly increased under even slightly obstructive conditions. Normally the large bowel is thin-walled, particularly in its proximal division, and the handling necessary to mobilize the growth squeezes virulent organisms out into the adjacent tissues and peritoneal cavity, and occasionally fatal peritonitis results. Mobilization is not difficult if one divides the peritoneal attachment of the bowel to the lateral parietal peritoneum from the outside and rotates it mesially, wrapping the fat and glandular tissues in with the bowel to be sacrificed, but it is impossible to avoid

a certain amount of handling of the growth in this process and despite careful packing away of the contents of the abdomen and wrapping the growth in gauze, infection occasionally takes place. The two-stage operation reduces this tendency by permitting more thorough cleansing of the segment to be removed and at the same time permitting rehabilitation of a desiccated patient by the institution of measures to increase the fluid balance and build up nutrition.

#### ADVANTAGE OF COLOSTOMY

I usually establish a colostomy opening at the primary operation on the left half of the colon, and at that time the presence or absence of visceral or glandular metastasis and the advisability of undertaking subsequent measures for resection are determined. The colostomy proximal to the growth permits irrigation which reduces inflammatory reaction around it and permits a more radical second-stage operation to be carried out. Occasionally it is noted that at the end of two to three weeks following intensive local treatment a growth which was tightly adherent and questionable for resection is relatively mobile and often may be satisfactorily removed. I believe that most of the fixation around neoplasms of the colon is due to inflammatory reaction rather than to malignant extension and for this reason perhaps one is justified in undertaking some of the more extensive operations which, although dangerous from the immediate operative standpoint, may yet yield satisfactory end results. Resection and anastomosis following the preliminary drainage operation is accomplished in the left half of the colon with a mortality rate comparable to, and in recent years in my experience, slightly lower than that following operation on the right half. The value of aseptic anastomosis in operating on the large intestine is unquestionable but there are definite limitations to its application. Experience with two types of technic has convinced me that aseptic re-establishment of the lumen of the bowel after resection is desirable. I have used the Parker-Kerr type of anastomosis satisfactorily in a series of cases and more recently have devised a clamp which has proved adaptable to the various types of anastomoses, either end-to-end or lateral. This clamp is made after the manner of the Payr clamp with the addition of a central blade, which allows a sufficient amount of pressure on both arms of the bowel to assure agglutination while

sutures are placed over the clamp on its anterior surface and drawn taut with inversion of the edges of the bowel without opening. Breaking through the diaphragm completes the anastomosis. In a series of experiments on dogs, and in a series of ten clinical cases following resection of the colon, the technical results have been satisfactory. In the absence of a diaphragm and secondary hemorrhage the method seems worthy of consideration. Any procedure which permits re-establishment of the continuity of the lumen in a clean manner is of great value and yet one feels that the failure of many types of aseptic anastomoses to be generally accepted has been due not so much to the technical features of the operation as to the disregard of fundamentals in the desire to accomplish a perfect primary operative maneuver. Indubitably, measures both local and general which tend to a reduction in the virulence of the infected content of the large intestine by drainage and application of medicaments directly are the most important considerations. Several outstanding factors of safety present themselves in the surgical management of the whole group of diseases of the colon and rectum:

1. The isolation of these cases into a separate division, under the individual management of a small group of clinicians and surgeons, has been found to be of the greatest value.

2. The establishment of routine preoperative and postoperative measures. The preoperative measures aim at general rehabilitation, local reduction of infection around the growth, cleansing the bowel as much as possible, and restoration of the normal physiologic equilibrium by the ingestion of large amounts of liquid and a proper carbohydrate dietary regimen before the institution of colostomy. This renders the operative procedure more simple and less likely to be followed by complications.

3. The introduction of drainage procedures and graded operations has been found to extend the horizon of operability, to reduce the immediate mortality rate, and to secure better end results. Economy of time in the preparation and treatment of such patients is a false asset. Patients suffering from carcinoma of the colon and rectum except the few who are first seen when acute obstruction is present must not be operated on in an emergency. Subacute obstruction in case of carcinoma of the colon is not an indication for emergency laparotomy. Usually, with rest,

morphine, and irrigations the condition clears up and the radical operation may then be carried out satisfactorily.

4. Another step in the preoperative preparation of such patients has been instituted recently in the Mayo Clinic, namely intraperitoneal vaccination by the introduction of mixed vaccine of colon bacilli and streptococci with the idea of producing immunization against subsequent infection. The application of the procedure is too recent to be reported on.

5. The choice of an anesthetic is an important consideration. Recently I have used spinal anesthesia in all cases of carcinoma of the colon and transsacral anesthesia in carcinoma of the rectum. Miles has long been an advocate of the employment of spinal anesthesia in this type of case and my own experience convinces me of its advantages. The facilitation it lends to adequate exposure by producing complete relaxation, the absence of pulmonary complications and the satisfactory immediate postoperative convalescence are ample evidences of the desirability of continuing such a program.

#### OPERATIVE RESULTS

In the Mayo Clinic at the present time the mortality rate following resection of the right and left colon is practically identical. Statistical study has shown that the mortality rate is slightly higher following resection of the right half for carcinoma alone than if tuberculosis, actinomycosis, and other surgical diseases are considered. If the two segments are divided sharply into right and left, however, one finds that the mortality rate is approximately the same if all these diseases are included. Satisfactory end results after resection of any segment of the colon, when compared with results from operation for carcinoma of the stomach, uterus, esophagus, or other organs, belie the reputation with which this type of operation has so long been identified both among the medical profession and the laity. Statistical studies of large groups of cases of carcinoma of the colon and rectum indicate that freedom from recurrence for from three to five years shows high percentages in cases of radical resection. A recent study of end results in resections of both segments of the colon at the Mayo Clinic over periods of three and five years, showed an encouraging number of persons to be alive and free from recurrence. In a large group of cases in which the right half of the colon had been resected, which I reported in

1923, 47 per cent of the patients were alive and free from recurrence at the end of three years. Likewise, in a group of cases of carcinomas of the rectum recently reviewed it was found that 48 per cent of the patients were living and free from recurrence at the end of three years. These results emphasize the necessity of early diagnosis and the institution of radical methods of extirpation. The clinician who first sees the patient will render the highest service not only in urging early extirpation of the growth, but by removing the widespread prejudice which exists against colostomy, and the unhopeful view which generally is taken of this type of disease. The anxiety with which the average layman views an artificial anus is greatly exaggerated, and assurance that such a procedure is entirely compatible with comfortable and useful existence will go a long way toward allaying the present prejudice against it. The well known tendency of carcinoma of the colon to remain local for a long time, and the satisfactory results following removal, as well as the reduced mortality which improvement in surgical technic has brought about, are factors which contribute greatly to a favorable outlook in these cases.

#### THE DIFFICULTIES SOMETIMES ENCOUNTERED IN DIFFERENTIATING SYPHILIS FROM TUBERCULOUS MENINGITIS\*

JAMES CLARK MOLONEY, M. D.

Division of Neuropsychiatry, Department of Medicine, Henry Ford Hospital  
DETROIT, MICHIGAN

In some cases of meningitis, historical, clinical, and laboratory data might fortuitously conspire in such a way as to make it difficult to differentiate between tuberculosis and syphilis as the etiological agent. This difficulty is well illustrated by the following case reports:

Case 1—Was admitted to the hospital September 17, 1927 in a psychotic state. Five years prior, he had a chancre. Wassermann positive and refused treatment. For a year previous to admission he was "not right mentally", "talked of ghosts and supernatural things". Married a demimonde in November 1926. Separated in three weeks and became depressed. At 3:00 p. m., September 12, 1927, he was too weak to work. At 6:00 p. m. his "actions became strange", he asked for things he already had, "dropped things", "wouldn't eat", became unmanageable and was taken by the police to Receiving Hospital, where he remained until transferred to this institution. Receiving Hospital reported a positive blood Was-

\* Read before the Detroit Society for Neurology and Psychiatry, December 8, 1927.

sermann, a temperature that hovered around 101° F., and an agglutination with paratyphoid A in dilutions 1:40.

On examination, the patient was confused and talking irrelevantly. Male, white adult, age 26 years, fairly well nourished with rectal temperature of 100° F. and pulse of 90. Right pupil was larger than the left. Both reacted to light sluggishly. Maxillary sinuses were cloudy. B. P. 95/65. Bladder was almost to umbilicus. Triceps reflex was excessive on the right. K.K.'s were not obtained. A suggestion of Rombergism was present. Blood Wassermann, Kahn one plus, Kolmer 22100.

Tentatively: Differential diagnosis was to be made between: (1) Typhoid fever, (2) Encephalitis epidemica and (3) Central Nervous System Syphilis.

#### COURSE IN HOSPITAL

September 18 — Temperature 101° F., F. P. 118/90. More rational. Being catheterized regularly.

September 19—K.K.'s and A.J.'s not elicited. No Kernig, mentally confused. Left pupil larger than right and irregular. Slight reaction to light. Lumbar puncture results: Pressure, 56 mm. Hg., fluid blood tinged, 240 cells, (monocytes), Pandy three plus, Kolmer 32100, Kahn two plus, Lange 0000023210, Mastic 2222110000, sugar 21 mgm., Widal negative for typhoid and for paratyphoid A. and B.

September 20—Diagnosed as acute meningo-vascular syphilis. Iodides started by mouth.

September 21—More confused. Lumbar puncture results: Clear fluid, pressure 12 mm. Hg., 530 cells, Kolmer 32100, Lange 0000012321, Mastic 444444433, culture and smear for acid fast bacillus were negative.

September 22—Placed on intensive anti-luetic therapy with intravenous iodides and neoarsphenamine.

September 25—Lumbar puncture results: Pressure 22 mm. Hg., 308 cells, Pandy two plus, sugar 31, xanthoproteic, Kahn four plus, pellicle present, smears negative for tuberculosis.

September 26—Ptosis of left upper lid and left facial paralysis present.

September 27—Stuporous, condition critical. Lumbar puncture results: Pressure 32 mm. Hg., 150 cells, Pandy three plus, pellicle present, smear negative for tuberculosis, Lange 0000001221, Mastic 0024442100.

September 28—Twitching of masseters.

September 29—Temperature 101° F. Paresis of left levator palpebrae, Blood pressure 140/90. Pulse 145. Condition much worse despite anti-luetic therapy.

September 30—Medullary involvement.

October 1—Spinal fluid turbid. Smear negative for Koch's bacillus.

October 3—Slight retraction of head, comatose, cyanotic, dyspneic. Patient expired, just 21 days after the manifestation of acute symptoms.

Final clinical diagnosis, (as signed on death certificate):

Acute meningo-encephalomyelitis, luetic.

#### AUTOPSY REVEALED

- (1) Chronic generalized intra-abdominal caseous tuberculous lymphadenitis.
- (2) Tuberculous cerebro-spinal meningitis and ependymitis, (confirmed by microscopy).

Case 2—Admitted October 25, 1927, complaining of headaches and "stomach trouble."

History includes seven months of projectile vomiting following meals with epigastric pains radiating to right hypochondrium unmitigated by eating or by soda, 15 days of severe bi-temporal and girdling headache exaggerated by straining, three days of thumping occipital and interscapular pain worse on walking, addiction to alcohol, (two to ten glasses of whisky a day supplemented by beer and wine), questionable luetic infection in 1919 with questionable reinfection three months prior to admission.

Examination revealed a well nourished male adult, age 36 years. Temperature 99.6°, pulse 90. Respirations 18. Both temples were tender. Antri were hazy. Mouth exhibited a white membranous lining, severe gingivitis, and a coated tongue. Ophthalmoscopic: O. D. Cupping absent disc outline obliterated by exudate at nasal margin. O. S. No cupping, exudate as in right but not so marked. There was a small area of hypesthesia between the left 7th and 8th thoracic planes posteriorly. Brachial arteries were a trifle thickened. The left patellar and left arm reflexes were slightly increased. The right upper abdominal quadrant was tender. The malleoli and iliac crests were questionably hypesthetic to vibration. Flexion of the neck was resisted and caused occipital pain.

#### TENTATIVE DIAGNOSIS

- (1) Chronic Alcoholism with serous Meningitis, (toxic).
- (2) Central Nervous System Syphilis.

Following the above diagnosis, the blood Wassermann was returned negative.

#### COURSE IN HOSPITAL

October 27—Lumbar puncture results: Pressure 12 mm. Hg., Pandy one plus, 294 cells, (lymphocytes), sugar 34, Kolmer and Kahn negative, Lange 0000132100, Mastic 0000000000.

October 29—Severe headache. Arm reflexes easily exhausted. Left K.K. more active than the right. Plantar reflexes hypersensitive. Restriction of visual fields to rough test. Giant ophthalmoscopic examination questions the presence of retinal exudate and considers the fundi hyperopic. Encephalitis entertained as a possible diagnosis.

October 31—Diplopia. Continuous vomiting. Syphilis as the etiological agent abandoned. Tuberculous meningitis more than likely present. Lumbar puncture results: Pressure 14 mm. Hg., 600 cells (90% mono.), Pandy three plus, Kolmer negative, Kahn two plus, sugar 95, Lange 0000123310, Mastic 1110000000, smear negative for tuberculosis.

November 4—Continuous vomiting, foul breath, pain in left parotid and temporal region. Hyperesthesia over right frontal region. Photophobia, suggestive Brudzinski and Kernig.

November 10—Morose, irritable. Diagnosis of tuberculous meningitis generally accepted.

November 11—Lumbar puncture results: Pressure 28 mm. Hg. Yellowish tint to fluid. Cells 427 per cm. (mononuclears) Pandy two plus. Smear and culture negative.

November 14—Chest X-ray negative for tuberculous, (primary focus being sought). Can't bite on left side of mouth.

November 15—Headaches most intense. Right palpebral fissure smaller than the left. Aural tinnitus most marked on the right. Optic papilloedema present?

November 17—Lumbar puncture results: Pres-

sure 8 mm. Hg., cell count 520 per cm. Pandy two plus. Smear and culture negative.

November 18—Unquestionable papilloedema.

November 21—Hyperesthesia over left fifth cranial nerve. Left pupil larger than right. No retinal miliary tubercle. Hearing impaired on left side. Reflexes more active on the left side. Reflexes generally hyperactive. Additional history obtained: Indurated ulcerative penile sore 1919, followed by local and general antiluetic treatment for three months. First blood Wassermann three months after starting treatment was negative. Yearly Wassermanns were negative. Had another soft penile sore 1927 followed by active antiluetic therapy for twenty days.

November 25—Lumbar puncture results: Pressure 32 mm. Hg., Cells 467. Kolmer 44444. Kahn four plus. Lange 445555542, Mastic 5555552110.

November 26—Intravenous iodides (100 ccs. of 10% sodium iodide given daily with ascending doses of neoarsphenamine (starting at 0.2 grs.) and mercury, Gr. 1. every third day.

December 2—Remarkable symptomatic improvement. No headache. Lumbar puncture results: Pressure 11. mm. Hg., Cells 191. Pandy four plus. Kolmer 44444, Kahn four plus. Lange 555555555, Kolmer 5555444321.

December 5—Rapid symptomatic improvement. Revised diagnosis:

- (1) Gummatus Meningitis (?)
- (2) Syphilis of C.N.S.

December 6—Blood Kolmer 44442, Kahn four plus.

December 8—Lumbar puncture results: Pandy four plus, cells 120. Marked symptomatic improvement.

With timidity and almost apologetically, we call attention to the host of obscure cases diagnosed in retrospect, since retrospectively we become cognizant of the particular features resident in each of these cases which should have revealed their real pathologic significance. It is only too evident that the positive serology in the first case and its absence in the second served to confuse the diagnostic issue. Nevertheless, the fulminating character of Case No. 1, fulminating despite the antiluetic therapy, should have precluded the possibility that the meningeal symptoms were due entirely to syphilis, even though a positive diagnosis of tuberculosis could not be made. But with the diagnosis of syphilis on the shelf, the clinical and laboratory picture would permit no conclusion other than that of tuberculosis. In Case No. 2, syphilis was immediately suspected, but the diagnosis was abandoned upon return of the negative serology. Still the capriciousness of the symptoms and the length of duration should have been convincing evidence that the meningitic signs were not due to tuberculosis. Beyond a doubt the conflicting course of events in the first case was still too fresh in our minds, and served to overshadow the possibility of syphilis existing despite a negative Wassermann, a condition not uncommonly seen

in treated cases. It is interesting to note, that in the first case, not only the smears from the pellicle were negative, but also a guinea pig inoculated with the spinal fluid failed to develop tuberculosis and was discarded.

These cases, so far as laboratory analyses are concerned, more than substantiate the old aphorism, that "all that glitters is not gold", and upholds a contention repeatedly stressed by clinicians, that in cases where laboratory and clinical data conflict, it is much wiser and safer to rely most on the clinical impressions.

I am grateful to Dr. Thomas J. Heldt, Physician in charge Division of Neuropsychiatry, Henry Ford Hospital, for suggestions and review of manuscript.

## POST ENCEPHALITIC SYNDROME

R. GRANT JANES, M. D.

(State Hospital)

PONTIAC, MICHIGAN

In this group, composed of fourteen cases of similar mental and physical bases, are included those with a history of previous encephalitis, a history only of influenza which may have been an incorrect diagnosis, and those having a history of both influenza and encephalitis. While this condition is now widely recognized, yet compared with the number of cases of encephalitis which occur each year, a very small percentage only must develop this syndrome.

In all cases the physical and mental status was very similar. There seemed to be no predilection for any age, the cases being from thirteen to forty-seven years of age with a history of influenza, encephalitis, or both, from one and one-half to eight years previous—average, four years. Both sexes were equally represented; all were white; their occupations were various—physician, druggist, school-girl, laborers and housekeepers. The personality of the individuals previous to trouble showed no particular variation from the normal.

### CONDUCT DISORDER

As a result of the central nervous system pathology, a distinct conduct disorder resulted. Individuals who were previously of a pleasant, industrious disposition, now became irritable, indolent, emotional, socially immoral, careless of personal appearance, quarrelsome, jealous, inefficient in their work, and showed poor judgment. They were frequently depressed, unable to concentrate, and often showed suicidal tendencies. Despondency in some cases

was quite marked; in some instances masturbation was practiced, and without any feelings of remorse. Others were critical, fault-finding, unreasonable; they were abusive to other patients, and at times were morose and profane. In all, mental retardation was quite apparent, and a slow but progressive dementia occurred. Calculation was very difficult and all actions were very slow. Prevarication, too, was much in evidence.

A number of the patients, particularly the females, frequently had pseudo-hysterical attacks, in which they fell to the floor and were apparently unconscious; these attacks lasted from a few minutes to a couple of hours. Some showed memory disturbances; in others the memory remained very acute. All would importune the physician frequently for release. Hypochondriacal conditions were frequent; one patient showed marked destructive tendencies and stole unremittingly. One individual had an illegitimate child; insight, except for occasional cases, was lacking. One realized her condition and desired to commit suicide to end it all.

The physical condition of the patients showed evidence of rather diverse central nervous system pathology, yet mostly confined to the prosencephalon and mesencephalon. There was mask-like expression, lack of associated movements of the arms when walking, spasticity and hypertonicity of extremities, and monotone voice, sometimes ending in crescendo and increasing in rate, were present in almost every case. Squint, particularly of the divergent type, with diplopia, was a common manifestation. Patients would sit for minutes at a time without blinking an eye. In one case an inability to converge was quite noticeable, and an occasional pupil irregularity was noted. There was poor vision, and one case showed conjugate vertical deviation of the eyes. In one case, complicated by lues, the pupils were contracted and immobile. Tremors of the face muscles, tongue, and of the extended fingers were frequent; asymmetry of the face was present in certain cases. Patients were slow in committing any motor act, and were also aware of the fact—it seemed to be a physic inhibition as well as a motor retardation. Speech, in a number of instances, was defective, and coordination was poor. An occasional case showed tendency to run when walking. In addition, one case showed retraction of head with some degree of exophthalmos. Knee jerks

were usually found exaggerated as well as hyper-activity of most of the other deep reflexes. Vague pains in back, arms, legs, abdomen, and headaches, were frequent manifestations. Inequality of hand grip, awkwardness, and occasionally, difficulty in maintaining steady standing posture with eyes closed were very often observed. Stiffness and soreness in neck, weakness of one side, and ironing out of naso-labial folds were frequently noted. One individual developed motor weakness and a peculiar sagging, one-sided gait—examination revealed soreness over fourth lumbar vertebra and muscular weakness, but no other apparent local pathology. Vertebral scoliosis was found in a couple of cases. One patient showed marked pill-rolling effect—a few others showed this condition to a minor degree.

#### PATHOLOGY FROM CLINICAL SIGNS

From the clinical signs and symptoms we can obtain some information as to the location of the pathology. The decided change in behavior, the emotional instability, the social and immoral conduct, and the inability to maintain self or to do their usual work, etc., is evidence of malfunction or destruction of the frontal cortex and its thalamic connections. Again the vague aches and pains are best attributed to the thalamus, the primitive central sensory center. Degenerative processes in the lenticular and caudate nuclei (large cells) produce Parkinsonian movements, while disease of the midbrain affecting the nucleus of the third nerve and superior colliculi account for the strabismus, poor accommodation, conjugate vertical deviation, and pupil irregularities. Weakness of one side, incoordination of motor activities, exaggerated knee jerks, and defective speech may be cortical in origin, or due to interference with the association tracts of the brain. It is possible that some of the centers of the hind-brain may be involved to account for part of the clinical picture. Since none of these cases have yet come to autopsy, the exact pathology remains indefinite. Prognosis is, of course, practically hopeless. One case has recovered from the spasticity, only to be more troubled by soreness and pains. It is a chronic, slowly-progressive disease, some cases showing but very little deterioration in the past eight years.

#### SUMMARY

In this group of cases we have a pathological condition which was primarily the

result of the virus of encephalitis, or possibly influenza, manifesting itself in a disease process of the cortex, thalamus, basal nuclei, superior colliculi, nucleus of the third nerve, and possible interference with the association tracts and lower cranial nerve nuclei. The result is that the mentality is seriously impaired; they are no longer able to conduct themselves in a manner which is consistent with life outside of an institution. There is a slow but progressive dementia of the higher mental faculties; there is emotional instability, asocial and immoral conduct, strabismus with diplopia, Parkinsonian movements, muscular weakness, spasticity of extremities, muscular tremors, speech defect, poor coordination, and lack of associated arm movements when walking. There is also tendency to increase deep reflexes, and their countenance becomes mask-like.

#### TREATMENT

Scopolamine hydrobromide—1/100 grain morning and night—has proved effective in the majority of cases in reducing their tremors and in controlling their irritability, and in relieving hypertonicity. When removed from the drug they immediately request its continuance, since they seem to feel its beneficial influence.

While hydro- and electro-therapy have been used, all seemed to be of no avail. The patient's mentality is permanently affected. Since they prove to be a social problem, institutional care becomes necessary.

#### PERI-TONSILLAR ABSCESS IN INFANTS—REPORT OF CASE

HARRY BAUGUESS, A. B., M. D.  
DETROIT, MICHIGAN

That peri-tonsillar abscess occurs rarely in infants is evident upon searching the literature for case reports. Eminent clinicians, of wide observation, affirm that this disease is rare in infancy and some say that they have never seen a case. Conversely retro-pharyngeal abscess is of more frequent occurrence in infants and many physicians have seen one or more cases.

The etiology is discussed in various text books, therefore there is no need to discuss it further here, as there is nothing new to add. Of reported cases, only one, that reported by Graef, was as young as the subject of this report.

Baby S., the first child of healthy parents, was delivered normally, September 13, 1927. He was breast fed. He has always been over weight, because of over feeding. At the beginning of the present illness he was two pounds over the standard weight for his age. His health was good until the present sickness began. Because of fever, refusal to take the breast and restlessness I was called to see him on March 15, 1928. Upon examination he was found to have a rectal temperature of 102°F., slightly enlarged tonsils with the area surrounding them inflamed. Two days later a gastro-enteritis of moderate degree developed.

On March 20, there was a cervical adenitis with the greater swelling at the angle of the right jaw. The head was retracted to the right and backwards. The breathing was difficult and through the open mouth and there was some cyanosis. Examination of the throat revealed the right tonsil with the surrounding area greatly swollen, dark red and pushing the uvula forward and to the left, and to the palpating finger the mass was hard.

There was no change in the condition for the next two days, but on the morning of March 22, the mass was found to be fluctuating. It was then incised with a free drainage of about 20 c.c. of pus. After the mass was incised the fever became normal, he then took the breast on the same day and completely recovered within a few days. During the entire course of the sickness the fever did not go over 102°F.

#### REVIEW OF LITERATURE

Clark, Horace: Reported a peri-tonsillar abscess in a baby boy, aged 14 months, the pointing of the abscess could not be determined. It ruptured spontaneously and the pus was discharged. New York Medical Journal, Vol. L. I., 1890/456.

Anders, Howard, S.: Suppurative Tonsillitis in Infancy, with report of a case. Baby R. aged eight months. The abscess was incised, pus discharged, recovery. University Medical Magazine, Vol. V, 1893/331.

Royster, L. T.: Peri-Tonsillar Abscess in Children, With Report of Case. A. S., aged 20 months, spontaneous rupture of abscess, later incision at angle of jaw, with drainage of pus. Opening seen at back of tonsil. Pediatrics, 10: July-December, 1900/201.

Graef, Fred N.: Reports a peri-tonsillar abscess in an infant aged six months. The abscess was incised and drained. New York Medical Journal, Vol. 117, 1923/267.

Hays, Harold M.: Mentions two cases of peri-tonsillar abscess in children; however, he does not give the age of either. Abt's Pediatrics, Vol. 3, /211.

## FOCAL INFECTION

J. G. R. MANWARING, M. D.  
FLINT, MICHIGAN

The theory of focal infections is still on trial. A portion of its value must consist in the results obtained following the removal of such infections. This is to a large extent poorly carried on at present with consequent disappointments. The occasion for this failure to find and eradicate such centres of infection seems to be due to a lack of understanding as to how to examine and what to look for.

An early arthritis deformans, infectious nephritis, iritis, retinitis, etc., are all serious enough to demand such an examination as is here outlined and proper corrective measures applied to all such foci found. Until this is done no one has a right to disparage his results in treatments of this kind.

We have come to note the following:

1. Skin: Acne and Furunculosis. In acne of the back, the axillary nodes are enlarged and may be noticed before the back is inspected.

2. Ears: History of chronic discharge, intermittent discharge and deafness. These call for a speculum examination.

3. Eyes: History of epiphora or pus in the eye mornings. Pressure on lachrymal region causes pus to appear near inner canthus.

4. Nose: History of blowing blood or pus from nose. History of Sinusitis. Look for purulent post nasal discharge in pharynx and ulcer or pus in the nose anteriorly. This can readily be done in routine work with a good flash light as the patient is lying down. Seldom is a speculum used.

5. Tonsils: History of sore throat, often very mild. Look for redness of pillars and surface of tonsils. The size of the tonsil is of little importance. If the pillars are redder than the rest of the region the tonsils are infected. This red edge along the pillar has been called the tonsillar halo. If narrow and sharp it has been thought to indicate a strep. infection, if broad and fading out gradually it has been thought to be staph.

A noted surgeon once said that if the "head man" says the tonsils look all right, they take them out for they are the worst kind.

6. Teeth: History of removal of pulps and canal fillings. Crowns, bridgework, etc., may of themselves indicate "dead" teeth. Rosenow states that of thousands of such teeth which have been split and examined, none was free from infection after being pulpless two years or more. Some dentists no longer "devitalize" teeth. They fix them otherwise or remove them. Look for "gum boils" and fistulæ which indicate deep infection. Pyorrhea reddening of the thin gum margin, the retraction of this margin, the evidence of pus on pressure should be looked for. Extensive necrosis of the teeth themselves is often of no importance.

Enlarged cervical lymph nodes point to infection of some part of the head usually.

7. Gall bladder and appendix are investigated in routine examinations now and are not apt to be overlooked.

8. Skene's Glands: A pouting of the posterior urinary meatus usually is due to suppuration of Skene's Glands and is not necessarily

gonorrhea. Sometimes there is redness or granular mucosa around the orifices. Pressure from behind will squeeze out pus unless the patient has removed it by scrubbing or the doctor by pressure during a bimanual examination. The glands may best be found with a fine silver ear probe. They vary from two to five in number. This is the most often overlooked source of infection.

9. Bartholin's Glands: The ducts lie to the outer side of the posterior end of the inner labia and are at once seen if reddened. (Macule of Sanger). The glands are farther posterior and pressure running forward will bring out the secretion when pus may be noted. The gland can be palpated for enlargement.

10. Cervix Uteri: History of thick mucopurulent vaginal discharge. Backache and pelvic aching often occur. The normal endocervical discharge is clear as egg white, when cloudy it means infection. Look for swelling, ectropion of the lining and Nabothian cysts which feel like shot under the mucosa, all of which mean infection.

11. Fallopian Tubes: Salpingitis is well understood and usually examined for now. It needs no especial mention.

12. Seminal Vesicles and Prostate: History of deep urethritis, epididymitis, irritable bladder, dysuria all call for examination of the vesicles and prostate. Even with no symptoms they often should be investigated. Examine for swelling, irregular consistency or unusual tenderness. Expressed fluid should be examined for pus.

13. Urinary tract: Pyelitis, though itself secondary, may become a focus for dissemination of infection. This is a familiar disease and will not be gone into.

14. Anal region: History of pain with defecation, pruritis or bloody stools point to a lesion near the anus. Fistulous openings in the skin should be looked for. A small papule may indicate such an opening. An indurated tract toward the anus can often be felt. The Crypts of Morgagni should be examined for redness and pus. Sometimes the induration of a fistula can be felt by digital examination. Anal ulcer is easily found when attempts at examination are made.

—From the Genesee County Medical Society Bulletin.

## WILLIAM HARVEY TERCENTENARY

The whole scientific world will this week celebrate the birth not of a man, but of a book, quite a small book, called "De Motu Cordis et Sanguinis." It was not longer than what we should nowadays call an essay, and its contents seem as simple as its title. It describes facts which now form the subject of diagrams on the walls of elementary schools. Yet it is one of those few books that have moved the earth by its effect on the minds of men. It rescued not merely medicine, but all biological science from the grip of tradition and "authority."

The enormous impetus it gave to human thought and progress is comparable with the work of only very few individuals, and it touches all of us more directly and intimately than that of the mathematicians and astronomers, or even such directors of thought as Bacon. Prior to the work of Harvey there had been no real advance, except in details, for some three thousand years. Even the lapse of one generation would have

meant a retardation of knowledge in geometrical ratio. For Harvey did more than demonstrate the details of the circulation. His was an early demonstration of the practical value of the inductive method of reasoning, of the essential value of experiment and observation. And he smashed forever the idea of "authority" in science.

#### ARTERIES "AIR TUBES"

Since the days of Galen it had been accepted that the blood ebbed and flowed to and from the heart. It picked up nourishment from the liver, it picked up air from the lungs. It went backwards and forwards in the body through the veins. Air from the lungs somehow got mixed up with blood. The arteries somehow "conveyed air" to the body, and with this air they conveyed "vapours" and "spirits", which became one axiom of a hopelessly false pathology. Thus, as anatomy advanced, physiology and medicine remained hopelessly at a standstill. Empirical theories of "concoction" of the blood in various organs were needed and believed for generations. The whole business depended on the passage of "some of the blood" direct from the left to the right side of the heart. The possibility of this had been challenged and even disproved. But even to Fabricius it must have seemed that it did happen, though he could not demonstrate it, because how else could the Galenical doctrine be true?

#### TRUE FUNCTION OF ARTERIES

But to Harvey nothing was true that was not demonstrated. He first asked himself, "Why are there valves in the veins?" He discarded the idea that they were "windows" admitting mystical substances to the tissues. He convinced himself that they assisted the return to the heart of the same blood that had left the heart. He proved that the arteries conveyed blood from the heart, not air or "vapours" as had so long been assumed by the anatomists. He worked out the mechanics of the heart as a pump with the necessary valves, and demonstrated the circulation through the lungs, emanating from the right side of the heart, and returning to the left side, and it's propulsion thence throughout the body. He showed that the same blood must be returned by the veins. But he was not able to demonstrate the channel of communication. One can imagine him asking himself, "Is there a fallacy here as bad as the old nonsense about the blood going direct from one side of the heart to the other, which I have proved to be impossible?"

#### HARVEY'S OPPOSITION

To the physicians of that day Harvey's theory was as disturbing, as revolutionary as must have been the notion that the earth revolved on its axis to people who, guided by their senses, regarded it as the immovable center of the universe. Harvey's theory was indignantly repudiated by the great "specialists" of his time.

But he was not subjected to the persecution that usually awaits the pioneers of thought. He died honoured by his profession and by mankind. Some four years after his death the great microscopist, Malpighi, demonstrated the "capillary circulation," the "missing link" in Harvey's theory.

It is natural to wish that Harvey could have lived to see this technical development. But to his mind it would have been but a detail. He must have known that he had proved his case. It is very unlikely that he realized that he had founded a new school of physiology, and medi-

cine, or that his work had proved him one of the greatest benefactors of humanity.—From the Manchester Guardian.

#### ECONOMIC WASTE FROM CANCER DEATHS

Cancer costs on an average \$1,000 per case for medicine and nursing alone. Multiply this by 110,000, the number of cancer deaths in the United States last year, and there results an annual cancer bill of \$110,000,000 according to statistics compiled by Dr. Louis I. Dublin of the Metropolitan Life Insurance Company. When the economic value of the victims is computed from the actual dollars and cents earning capacity of the various age groups, cancer losses run up to over \$680,000,000 annually, a figure that Dr. Dublin has estimated equals a tenth of all the iron and steel manufactured in the country every year or all of the current income of the state of Louisiana. This plus the sickness costs brings the grand total up to \$800,000,000. "If we had that much money loss every year through other forces of nature we would get busy and try to prevent it," declared Dr. Dublin. "Expert engineers and others would be asked to concentrate all their faculties on the problem; but with matters of human life we are not so careful nor so anxious. . . . We must organize agencies of research on a grand scale. Then the monster of cancer will surely, in time, be brought under control, just as the menace of other diseases has been."—Science Service.

#### VALE, CHIROPRACTIC

That chiropractic should have gone on the rocks was inevitable. Sooner or later the same fate will await all of the medical cults which exist as short cuts to the practice of medicine. In a recent Philadelphia address, to a group of his followers and dupes, B. J. Palmer, the originator and high priest of the chiropractic cult, sang his own swan song, announcing that he was done with this form of practice and thenceforth the thousands of chiropractors whom he had fostered and launched on their careers, will be forced to shift for themselves without the support of their great leader and prophet. His explanation has been obvious from the outset to anyone of ordinary intellect. These cultists, whom he has developed and instructed along a single line of treatment, soon found this narrow gauge course inadequate, and, as the peerless leader has stated, they ventured the attempt to practice medicine en masse. He attributes the debacle to the passage of the basic science laws, inspired largely by their existence. States having this means of discriminating between knowledge and ignorance have thus barred their entrance for practice. He states, furthermore, that the supreme courts in seven states have handed down injunctions whereby they are lost forever to chiropractic. The only sop which he offers to the mourners is that by suitable education they may yet be enabled to enter the ranks of medical practitioners. Personally he is not concerned. Having amassed a fortune by commercializing on a grand scale his own medical "discovery," he does not propose to waste more money in an attempt to bolster a hopeless cause, and forthwith proclaims he has quit. Thus ends this bizarre excursion in treatment of human ailments which within recent years has attracted quite an army of followers. Vale, chiropractic!—Northwest Medicine.

## MICHIGAN'S DEPARTMENT OF HEALTH

GUY L. KIEFER, M. D., *Commissioner*

Because of the unusual prevalence of rabies among animals in several sections of the state, a general warning has been sent by the State Department of Health to all mayors and village presidents. The letter urges close supervision of dogs in an effort to prevent a corresponding increase in the number of cases of rabies among humans.

In order that physicians may be fully informed on the situation, we reprint the letter, together with the regulations of the department in regard to rabies that were sent with it. The co-operation of physicians is earnestly requested in making these facts generally known in their communities.

**"To all Mayors and Village Presidents:**

"For some months rabies has been far more prevalent in this state than is usual. Past experience has shown conclusively that an increase in the prevalence of rabies in animals is soon followed by the occurrence of cases of rabies in humans.

"The State Department of Agriculture has the responsibility of the control of rabies among animals. Twenty counties have been placed under quarantine by the State Department of Agriculture to prevent the spread of the disease at this time. Dogs being carried about the state in automobiles may transport the disease to communities where it has not yet appeared.

"It is essential for the protection of the health of the people in all communities of this state that the enclosed simple directions be followed, in case of dog bites or any other exposure to rabies.

"Rabies is a disease which is spread by the saliva of the infected animal. Before the disease can be spread to another animal or person this saliva must be inoculated under the skin of the animal or person. This is usually done by the biting of a rabid dog, because the dog usually attacks by biting.

"In addition to the protection that can be had by official action, each dog owner has a very definite responsibility. If each dog owner will keep his dog under close supervision at his own home, the opportunity for the dog to contract rabies will be very much diminished. The stray, unlicensed dog is the greatest menace in

rabies. Police officers should capture all stray, unlicensed dogs, and dispose of them according to law.

"During an epidemic of rabies among the animals of a community, the public is facing a serious situation. Proper, prompt, and cool action on the part of public officials will do much to prevent hysteria on the part of the public.

"Very truly yours,

*"Guy L. Kiefer, M. D.,  
"Commissioner."*

**IN CASE OF DOG BITES**

***What to Do with the Dog—***

1. Do not kill the dog unless it is necessary to effect capture.
2. Secure the dog with a light chain or wire.
3. Keep the dog in a comfortable place.
4. Treat the dog kindly, he is probably sick.
5. Give the dog plenty of food and drink.
6. Make sure that the dog does not escape.
7. Keep children and inquisitive adults away.

*If the dog is alive after ten days, he was not rabid.*

*If the dog dies within ten days—*

1. Cut off the whole head.
2. Put in a tin pail with a cover.
3. Pack this pail in the middle of a wooden candy pail or box of similar size with three-fourths sawdust and one-fourth ice.
4. Ship at once by express to Pasteur Institute, Ann Arbor, Michigan, with letter giving full details.
5. The Pasteur Institute will give the further directions.

*If the dog must be killed to effect a capture—*

1. Do not damage the head in any way.
2. Cut off the head, pack and ship it as described, at once.

*What to do with the person bitten—*

1. Take the person to a physician at once to have the wounds cauterized. Fum-

ing nitric acid or full strength formaldehyde are the only effective means of cauterizing these wounds. This is of especial importance if the wounds are on the face or hands.

*General Considerations—*

1. When you have a dog under observation for a ten-day period, it is essential that you know that the dog you have is the dog that did the biting.

2. In case of any dog bite where it cannot be proved that the biting animal was not rabid, it is advisable to start Pasteur treatment at once.

**LABORATORY NOTES**

A limited supply of scarlet fever streptococcus antitoxin for therapeutic use is now available to Michigan physicians. The Department of Health will distribute, free of charge upon telegraphic request, antitoxin for the treatment of cases of scarlet fever.

The development of the process of manufacture of products for the prevention and treatment of scarlet fever has been carried on since the legislature made the appropriation for the Biologic Products Division of the Bureau of Laboratories, so that, on account of insufficient funds, we are unable to make a general distribution of scarlet fever antitoxin. When funds are available, scarlet fever antitoxin will be distributed without restrictions as we do diphtheria antitoxin. Within the limits of our resources, however, we will supply scarlet fever antitoxin to all those who request it.

Occasionally physicians request a Wassermann test run on blood specimens sent to the laboratory. Since January of this year the Lansing laboratory of the Michigan Department of Health has had requests for perhaps one hundred Wassermanns, an extremely small proportion of the 41,221 Kahn tests run during the same period of time. On checking up with physicians, it is found that they frequently use the name for serum diagnosis of syphilis without any desire for the special Wassermann test. Eight Wassermanns, requested since January, have been run. There was no variation between the Kahn test and these eight.

The Bureau of Laboratories of the Michigan Department of Health, therefore, announces that the Wassermann test will be run *only* on the first three days of each month, and that the Kahn test will be run daily as at present. If a physician

has a patient on whom he wishes a Wassermann test as well as a Kahn test, he should send in the blood specimen on the last day or two of the month and it will be run with the Wassermann method the first of the following month.

**ROADSIDE WATER SURVEY STARTS**

The summer program of inspecting and testing roadside drinking water supplies was started on Monday, May 21, when a representative of the Bureau of Engineering left Lansing for the southeastern part of the state. From there the main trunk lines of the state will be systematically covered and careful check made of all drinking water sources that might be used by highway travelers. A second man will leave within a short time, and it is hoped that a third can be put on the road later, so that the entire state can be covered during the tourist season.

Safe supplies will be posted with a metal sign this year as usual. Individual supplies will have a yellow and black sign and approved municipal supplies will be designated by an orange and black sign.

**SANITATION AT CAMP GRAYLING**

Plans and specifications for an extensive new sewerage system and for improvement in the water supply at Camp Grayling have been approved by the federal government and bids on the construction will be received within a short time. Colonel E. D. Rich, Director of the Bureau of Engineering, accompanied by Colonel Leroy Pearson, Quarter Master General of Michigan, made a special trip to Washington with the plans to insure prompt action.

Contracts to be let will total between \$50,000 and \$75,000. Active operations will start at the close of camp in the fall, and will be under the general supervision of the Bureau of Engineering.

**CHANGES IN PERSONNEL**

Dr. Paul F. Orr left the staff of the Bureau of Epidemiology on May 1st to become Commissioner of Health of the city of Toledo.

Dr. Robert Stark has been appointed to fill the position left vacant by Dr. Orr. Dr. Stark graduated from the University of Michigan in 1910 and for two years was at the Pasteur Institute in Ann Arbor. He served as director of laboratories of the State Department of Health of North Dakota, returning to Michigan to practice medicine in Allegan.

Last year Dr. Stark took the course in rural health work at the school in Greenville, Ohio, conducted by the Rockefeller Foundation.

#### CHILD HYGIENE ACTIVITIES

The women's classes in prenatal, infant and child care that have been held in Presque Isle county are just being completed, and Dr. Ida M. Alexander, who is in charge of them, goes to Iron county, where she will conduct a similar series of classes. Dr. Alexander is substituting for Dr. Rhoda Grace Hendrick, who is on three months' leave of absence.

Child care classes are being terminated in the rural schools of Muskegon and Jackson counties. Similar classes have just ended in Menominee county. The nurses who have been conducting these classes will spend the summer months carrying on breast feeding campaigns.

Physicians have already been visited in Montcalm, Crawford and Menominee counties and have expressed their approval of having breast feeding surveys conducted in their counties. The nurses assigned to this work will make home calls on the mothers of young infants. Miss Martha I. Giltner, who has had charge of child care classes in the rural schools in Menominee county, has left for a two weeks' vacation, during which time she will attend the biennial meeting of three national nurses' associations at Louisville, Kentucky. Upon her return to Menominee county she will conduct the breast feeding campaign there. Arenac county is already having a breast feeding survey, carried on by Esther Nash, nursing director for the Lower Peninsula.

#### MOUTH HYGIENE WORK

Seventeen localities in the state were visited by the Director of the Bureau of Mouth Hygiene, and 27 addresses were given before schools, parent-teacher associations, medical and dental societies and general audiences, during May.

The need for mouth hygiene activities was demonstrated in 14 different towns by examining one school room in each town in the presence of teachers, parents, health workers, and others interested.

Towns visited during the month include Helland, Grand Haven, Grand Rapids, Dearborn, Algonac, Hart, Allegan, Ithaca and Saginaw. In the four places named last, the group before which the talk and demonstration was given was the County

Normal students. This is an especially important group from the standpoint of progress in the rural schools, since most of the teachers in the country schools are trained in the county normals.

#### TOURIST CAMPS AND PICNIC GROUNDS

With the rapidly increasing use—and number—of tourist camps and picnic grounds has come the problem of their proper regulation from a sanitary standpoint. Rules governing such camps have been prepared by the department and printed in placard form for convenient posting. This placard is being sent to all mayors in the state, with a letter explaining the enforcement of the regulations.

Because of the importance of the matter both from a health and a resort standpoint, we quote from the letter to mayors, and reprint the very simple regulations. The quotation shows the interrelation between state and local authorities in enacting and enforcing the rules.

"You will receive in this roll a placard prepared by the Michigan Department of Health and approved by the State Advisory Council on Health. This placard carries the rules and regulations of this department concerning tourist camps and picnic grounds.

"These rules and regulations are to be enforced by your own police officers if the camping ground is in your city limits, or by deputy sheriffs or special officers if outside of your city limits. If you would like more of these placards to post in your tourist camps or picnic grounds, they will be furnished you on request.

"It is the desire of the Michigan Department of Health to make this state a desirable place for summer tourists. If they find neat, clean tourist camps and spend their summer vacation with us without contracting any sickness, they will come back and bring their friends with them."

#### REGULATIONS FOR THE SANITATION OF TOURIST CAMPS AND PICNIC GROUNDS

The following regulations apply to any place offered to the public for the above mentioned purposes. Persons finding these premises in insanitary conditions should report the facts to the mayor, village president or supervisor, the local health officer, or to the State Department of Health.

#### SUPERVISION AND EQUIPMENT

1. At least one attendant shall be provided who will have the full responsibility

of the carrying out of these rules, and such other duties as assigned to him by proper local authority.

Police officers should visit the tourist camp as a part of their regular tour of duty.

2. Each tourist camp shall be equipped with an incinerator or other suitable device for the burning of paper, litter and refuse.

3. It shall be a part of the duties of the attendant that once each day during the season a fire be built and all paper, litter and refuse incident to the use of the place be collected and burned.

#### WATER SUPPLY

1. A clean, wholesome supply of water must be available at all times. Open springs are not advised unless they are located or constructed so as to prevent pollution from the surface of the ground.

2. Laboratory and field studies shall be made of the water.

3. Any unsafe water supply within the camp or in its immediate vicinity, shall be kept conspicuously placarded, warning against its use for drinking or culinary purposes.

#### TOILETS

1. Some approved type of sanitary toilets must be provided.

2. These must be adequate in number, separate for the sexes and kept clean at all times.

3. These toilets shall always be of the waterflush type when water and sewer are available.

4. Where the water, but not the sewer is available, waterflush toilet shall be connected with septic tanks. Designs of approved septic tanks are available free of cost of the State Department of Health.

5. Pit privies will be allowed only:  
 (a) Where neither water nor sewer are available.  
 (b) When located in a proper place, and  
 (c) When kept scrupulously clean.  
 (d) When the pit is (1) deep, (2) dark, and (3) fly tight.

6. The location of all toilets shall be indicated by appropriate signs.

#### GARBAGE AND REFUSE

1. Receptacles for papers, litter, refuse, boxes, etc., shall be furnished in adequate size, adequate numbers, and in

adequate locations. These receptacles shall be emptied and the contents burned daily by the attendant.

2. All garbage must be carefully wrapped in paper and deposited in the receptacles provided for this purpose, by the people using these grounds.

3. All garbage receptacles must be kept clean and emptied daily. The garbage must be disposed of in such a manner that its disposal does not cause a nuisance.

4. When the attendant finds campers wilfully or carelessly littering these grounds or abusing any of these facilities in any manner, he shall exclude them from the grounds.

#### PERSONAL SAFETY

1. For personal safety, tents should not be placed less than ten feet apart.

#### PENALTY

These rules and regulations have been adopted by the Advisory Council of the Michigan Department of Health. Violation of any of these rules, by individuals or counties, cities, villages or townships is a misdemeanor and punishable by law.

#### VISITS OF ENGINEERS DURING THE MONTHS OF APRIL AND MAY, 1928

Inspections of Railroad Water Supplies: total, 52.

Adrian	Hillsdale
Ann Arbor	Ionia
Bad Axe	Jackson
Battle Creek (3)	Ludington
Benton Harbor (3)	Mackinaw City (3)
Cadillac (3)	Marshall
Caro	Muskegon (3)
Caseville	Mt. Clemens
Cass City	Niles (3)
Detroit (4)	Port Austin
Flint (2)	Port Hope
Grand Haven (2)	Port Huron (3)
Grand Rapids	St. Joseph (3)
Grayling	Taylorville

Inspections and Conferences, Sewerage and Sewage Disposal: total, 57.

Bay View (2)	Muskegon Hts., (2)
Benton Harbor (3)	Mt. Clemens (2)
Birmingham (2)	Mt. Pleasant
Cadillac (2)	Niles
Coopersville	Nine Mile Road
Comstock Park	North Muskegon
Dowagiac (4)	North Park (2)
E. Grand Rapids (2)	Petoskey
Fremont (6)	Roseville (5)
Gladstone	Saginaw (2)
Grayling	South Haven
Holland (2)	St. Joseph
Ithaca	Whitehall
Lansing (4)	Williamston
Mackinaw City	Zeeland
Muskegon	

### Inspections and Conferences, Water Supplies: total, 21.

Ann Arbor	Pearl Beach
Benton Harbor	Rockford
Berkeley	Saginaw
Center Line	South Haven
Dundee	Utica (7)
Grayling	Williamston
Jackson (2)	

### Inspections and Conferences, Stream Pollution: total, 14.

Adrian	Kent City
Benton Harbor	Niles
Blissfield	Rockford
Dowagiac (3)	South Haven (2)
East Lansing (2)	St. Joseph

Inspections and Conferences, Swimming Pools: total, 8.

Hamtramck  
Highland Park  
Jackson

Inspections and Conferences, Miscellaneous: total, 16.

- Ada, School Sewage Disposal
- Attica, Sewage Treatment for New School.
- Bath, Drainage Nuisance.
- Detroit, Methodist Children's Home.
- Jackson, Sanitary Inspections.
- Lansing, Sewage Disposal for Private Utilities.
- Lansing Twp., Drainage Nuisance.
- Port Huron, Water Supply, Young Women's Hebrew Association.
- Rockford, Proposed Rendering Works.
- Roseville, 11-Mile Highway Drain.
- Salem, School Well.
- Salem, Private Well.
- South Haven, Sewage Complaint (3).
- Williamston, Sewer Nuisance.

### Conferences and Inspections, Institutions: total, 4.

Genesee County Poor Farm, Sewage Disposal.  
Grayling, Survey for Water and Sewer Systems (76 days on survey at Camp Grayling).  
Jackson, Sewage Disposal at State Prison.  
Saginaw, Water Supply St. Vincent's Orphanage.

## PREVALENCE OF DISEASE

May Report  
Cases Reported

	April 1928	May 1928	May 1927	Av. 5 Yrs.
Pneumonia .....	1,068	1,127	526	581
Tuberculosis .....	517	560	506	594
Typhoid Fever .....	23	17	24	34
Diphtheria .....	230	323	381	357
Whooping Cough .....	581	619	751	657
Scarlet Fever .....	1,080	1,176	1,103	1,193
Measles .....	6,212	4,769	1,175	4,135
Smallpox .....	132	88	188	236
Meningitis .....	22	23	6	13
Poliomyelitis .....	1	4	0	2
Syphilis .....	1,121	1,028	1,325	1,049
Gonorrhea .....	558	376	674	716
Chancroid .....	6	5	0	6

**CONDENSED MONTHLY REPORT**

Lansing Laboratory, Michigan Department of Health  
May, 1928

	+	-	+	Total
Throat Swabs for Diphtheria	.....	.....	.....	970
Diagnosis	19	247	.....	.....
Release	77	237	.....	.....
Carrier	7	365	.....	.....
Virulence Tests	7	11	.....	.....
Throat Swabs for Hemolytic Streptococci	.....	.....	.....	577
Diagnosis	122	83	.....	.....
Carrier	82	290	.....	.....
Throat Swabs for Vincent's	36	230	.....	266
Syphilis	.....	.....	.....	8099
Kahn	1210	6835	50	.....
Wassermann	.....	3	.....	.....
Darkfield	1	.....	.....	.....
Examination for Gonococci	140	1269	.....	1409
B. Tuberculosis	.....	.....	.....	610
Sputum	85	465	.....	.....
Animal Inoculations	5	55	.....	.....
Typhoid	.....	.....	.....	117
Feces	2	42	.....	.....
Blood Cultures	2	24	.....	.....
Widals	4	33	.....	.....
Urine	.....	10	.....	.....
B. Abortus	4	19	.....	23
Dysentery	.....	.....	.....	29
Intestinal Parasites	.....	.....	.....	17
Transudates and Exudates	.....	.....	.....	289
Blood Examinations (not classified)	.....	.....	.....	154
Urine Examinations (not classified)	.....	.....	.....	346
Water and Sewage Examinations	.....	.....	.....	382
Milk Examinations	.....	.....	.....	99
Toxicological Examinations	.....	.....	.....	9
Autogenous Vaccines	.....	.....	.....	1
Supplementary Examinations	.....	.....	.....	186
Unclassified Examinations	.....	.....	.....	560
Total for the Month	.....	.....	.....	14143
Cumulative Total (fiscal year)	.....	.....	.....	147693
Increase over this month last year	.....	.....	.....	1847
Outfits Mailed Out	.....	.....	.....	16865
Media Manufactured, c. c. (Special)	.....	.....	.....	179485
Typhoid Vaccine Distributed, c. c.	.....	.....	.....	2930
Diphtheria Antitoxin Distributed, units	.....	.....	.....	24005000
Diphtheria Toxin Antitoxin Distributed, c. c.	.....	.....	.....	21610
Silver Nitrate Ampules Distributed	.....	.....	.....	11028
Examinations Made by Houghton Laboratory	.....	.....	.....	2026
Examinations Made by Grand Rapids Laboratory	.....	.....	.....	7611

## SMALLPOX CASES SHOW INCREASE

show that there are 250 more cases in the last reliable figures of the U. S. Public Health Service

Smallpox is on the increase. The latest available corresponding week of last year. In spite of the reported week in March than there were in the fact, however, that smallpox is more prevalent this year in the country at large, it has just been reported to the American Medical Association that not a single case of the disease has been contracted in the public schools of St. Louis, Mo., for 33 years. Systematic vaccination with subsequent inspection and reinspection of vaccinations on the part of the city division of health and the hygienic department of the public schools are considered the agents that have made possible this remarkable record—Science Service.

# THE JOURNAL

## OF THE

### *Michigan State Medical Society*

#### PUBLICATION COMMITTEE

J. D. BRUCE, M. D., Chairman	Ann Arbor
B. F. GREEN, M. D.	Hillsdale
B. H. VAN LEUVEN, M. D.	Petoskey

#### Editor

J. H. DEMPSTER, M. D.,  
641 David Whitney Bldg., Detroit, Michigan.

#### Business Manager

FREDERICK C. WARNSHUIS, M. D., D. Sc., F. A. C. S.  
Grand Rapids, Michigan.

All communications relative to exchanges, books for review, manuscripts, should be addressed to J. H. Dempster, M. D., 641 David Whitney Bldg., Detroit, Michigan.

All communications regarding advertising and subscriptions should be addressed to F. C. Warnshuis, M. D., Suite 1508 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

JULY, 1928

*"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."*

—Francis Bacon.

## EDITORIAL

### THE POST-GRADUATE CONFERENCE

Over a thousand physicians met in Detroit to attend the Post-Graduate Conference which took place May 14th to 17th inclusive. The Conference was a marked success from every viewpoint. The program was carried out as announced in the May number of this Journal. It consisted of some of the best medical and surgical talent both within as well as outside of the State. There were approximately sixty subjects presented, a number as prepared and a few as oral addresses. The readers of the Journal will have an opportunity during the coming months to go over a number of the addresses at their leisure, as it is our endeavor to assure permanency for as many as possible of these able medical and surgical dissertations.

The attendance as anticipated was good. There were between eight and nine hundred registrations and it was estimated half as many more attended who did not register. The speakers were as enthusiastic over this new venture as were their audiences, which is saying a good deal.

Much credit is due the local committee

of the Wayne County Medical Society, who were largely responsible for the arrangements, and particular mention is made of Dr. George Van Amber Brown, the president of the Society, who had been untiring in his efforts to make the Conference a success.

## PHYSICIANS AS LEGISLATORS

Legislatures of almost every civilized State are apt to have a plethora of lawyers as members. We know none in which physicians form a noticeable contingent. This is largely due to the fact that physicians are prone to avoid such positions. This is unfortunate in as much as there is no class of men better qualified by training and experience for legislative positions. Why? Because in the first place a great deal of legislation, particularly State legislation, has to do with the problems of preventive medicine and sanitation, and secondly the individualistic character of the physician puts him in a position to view impartially the rights and privileges of others. No farmer for instance could represent his class more satisfactorily than a doctor who had practised a number of years in a rural community. And yet for reasons that may be perfectly obvious we have very few of such men as members of the legislature.

The refusal to represent the people calls to mind an interesting phase of the early history of parliamentary government. Parliaments were forced upon the people and did not represent in the beginning a demand on the part of the people at large for a voice in the affairs of State. The first parliament extended to everyone the privilege to attend and to assist in the deliberations of government. This was found unsatisfactory and resulted in the substitution of representatives for the community or constituency at large. These representatives looked upon the matter of attendance on parliament about the same as the average culprit or witness looks upon attendance at police court. Accordingly the command to attend parliament read more like a summons to a modern justice court. In fact two representatives of Oxfordshire, England, fled the country rather than attend parliament and were thus declared outlaws.

So much for the bit of history. It would appear at the present time in this State that a number of members of the medical profession should be prevailed upon emphatically at least to allow themselves to stand for election to the Michigan State

legislature. We have in mind a number we would like to draft if that were possible. There is no question but the presence of a number of physicians would add material strength not only to committees on health but to other matters of State as well.

#### JOSLIN'S IDEALS IN DIABETIC TREATMENT\*

Elliot P. Joslin sets forth his ideas in the treatment of the diabetic. As yet we have not an ideal treatment for this disease, inasmuch as we cannot offer any hope of a cure. The first thought should be that while seeking to help the patient any measure should be avoided which might increase complications or in any way jeopardize the patient's chance for a normal span of years.

There are in general use three methods of diabetic treatment: first, a high carbohydrate and low fat diet as used by the normal individual, and which, when given to the diabetic must be accompanied by large doses of insulin; second, the low carbohydrate and high fat diet which for some years past has been in great favor (with the doctors; not with the patients); third, a moderate amount of carbohydrates and fat in the diet even if insulin must be given to keep the patient sugar free. The author has long been opposed to a high fat diet and after a great deal of clinical observation and much research is now bringing forth evidence to support his views. Joslin is convinced that a high fat diet by increasing the blood lipoids will produce a premature vascular sclerosis.

Due to a judicious use of insulin the diabetic of today is being saved from the complicating acidosis and coma which so frequently proved fatal to the patient of a few years ago. For this reason there are many patients who have lived with diabetes for ten to fifteen or more years and we are now able to draw some fairly sound conclusions as to the factor of diet on this condition. The great complication of diabetes is no longer coma but arteriosclerosis, and this condition is more frequent in the diabetic than in the non-diabetic. We must now turn our energies to the prevention of this condition.

The author stresses the necessity of maintaining a proper weight for age and height in preventing the development of arteriosclerosis. He thinks diabetes most commonly begins from excess of fat in the tissues and in the diet. In this paper he also takes a stand against the large doses

of insulin so frequently employed. He favors the small frequently repeated doses. His ideals for the youthful diabetic include a vacation in a camp for diabetics only where there will be no diabetic temptations and where there will be opportunity for supervised sports. It is surprising how the toleration for carbohydrate increases when proper environment is supplied.—L. F. C. W.

#### EXIT QUACKERY

Probably that is too much to expect in this day and generation. The daily newspapers a month ago featured accounts of police raids on advertising medical offices in Detroit and it was stated that this illegitimate traffic in the fears and frailties of deluded men and women was more or less prevalent in this and other states. This is a matter which does not concern the medical profession any more than it does any other class of people in the State. It is an evil that calls for correction and the law enforcing authorities are the ones properly to deal with it. The medical profession has done and it is doing its best to enlighten the lay public of the State in such matters that should lead them to shun the quack. This is not the only evil with which people unknowingly contend. In the same class we have electric belts and other devices that are advertised in the public press and which delude the confiding public.

The radio has not been above suspicion in regard to some of the material broadcasted, but it is perhaps too young to have developed any special ethics. Quackery thrives on publicity whether it is newspaper, radio or pamphlets thrown from door to door.

#### RADIOLOGICAL FRAUDS

From the reports of Radiologists from various parts of the United States and Canada, the feeling is justified that this specialty is threatened by more or less serious dangers. There are complaints of fee-splitting under various disguises; then there are commercial laboratories without a qualified radiologist in charge. Some employ physicians as figure-heads, who are supposed to pass upon cases coming to the clinic but who actually do not. To protect and safeguard the specialty of Roentgenology a committee of the Radiological Society of North America after investigating complaints made, drafted resolutions to the effect that:

- (1) Radiological diagnosis is a consulting spe-

cialty of medicine, the chief function of which is to aid practitioners of other specialties and of general medicine in the diagnosis and treatment of disease; (2) That it is improper and unethical for any radiologist or any organization practising radiology to offer discounts or commissions, or other financial inducements, to attract patients either directly or through reference by other physicians; (3) that it is unethical for any radiologist or organization practising radiology to make charges referring physicians for services rendered, but that all such charges must be made against the patient for whom such services are rendered; (4) that a commercial X-ray laboratory is defined as one which advertises to make radiographic or fluoroscopic examinations for physicians and surgeons for the avowed or apparent primary purpose of financial gain; (5) that it is improper and unethical for any radiologist to become affiliated with a commercial X-ray laboratory; (6) that a stock company or corporation with physicians and surgeons as stockholders, offering dividends as an inducement to refer cases to a laboratory owned and operated by such company or corporation, is unethical, and that such dividends be regarded in the same light as commissions or discounts. A group of physicians may properly own and operate an X-ray department or laboratory, providing the earnings therefrom are employed for the advancement of the science of radiology or other branches of medicine or the maintenance and improvement of service to patients, but not as an inducement to stockholders to refer cases in the hope of receiving greater dividends.

Radiology is one of the most highly specialized departments of medicine. It calls for a working knowledge of both normal and pathological structures from the viewpoint of density; it also demands acquaintance with the physics of high tension currents and electrical phenomena. A physician is poorly equipped as a radiologist if he is unfamiliar with the biological action of the X-rays and radium.

The radiologist is a consultant not only to the surgeon but the internist as well, and this includes almost all the surgical and medical specialties. His relation to the patient is of such a kind as to call for a personality of a peculiarly ideal type. He must observe the dignified ethical relations that should always obtain between consultant and referring doctor and at the same time gain the confidence of the patient.

In tribute to the specialty of radiology, Dr. W. J. Mayo has declared that, "Neither the microscope nor the ultra-microscope has given visual knowledge with regard to the internal structure of the human body. Necropsy reveals the terminal changes that cause death, not necessarily the nature of the lesion during life. Surgical operation has greatly advanced our knowledge of the pathology of the cranial, the thoracic, and the abdominal viscera, but often is resorted to only when the disease

is so far advanced that the knowledge gained comes too late to be of use to the patient.

"Radiology has come to our aid in the elucidation of internal disease processes and has proved to be one of the greatest blessings vouchsafed to mankind. It affords wide knowledge in the early stages of disease conditions of the viscera, the bones, and other structures. While radiology is highly specialized, the fruits of the labor of the radiologist as concerns clinical conditions should be put in the hands of every man who practises medicine."

#### PEPTIC ULCER\*

To operate or not to operate; that is the question. Perhaps on no other topic has there been so much written within recent years as gastric or duodenal ulcer, unless it be on malignancy. Reginald Fitz writing in the New England Journal of Medicine (formerly the Boston Medical and Surgical Journal) puts his subject in a very pointed way: "What Would You Do if You Had a Peptic Ulcer?" The problem of the best treatment of these cases according to this writer, is at present unsettled. "One hears surgery recommended, and listens to warm supporters of operative procedures like pyloroplasty, gastroenterostomy or even subtotal resection of the stomach; on the other hand are the advocates of medicine who emphasize the hazards and failures of surgery who sing the praises of medical therapy and describe drugs and diets which seem to cure many cases. On last analysis, therefore, any skeptically minded physician seems driven to rely upon his own experiment."

The paper under consideration was the result of a study of thirty-three cases of ulcer, twenty-two male and eleven female. Each of the men and ten of the women had duodenal ulcer and one woman gastric ulcer. The men showed a greater tendency to hemorrhage than the women. The medical treatment was dietary combined with alkalinization. The women were found to respond more readily than the men and to become symptom free.

The author places stress upon the psychic factor as an element in the management of ulcer. Incidentally it might be said that Dr. George Draper of the Medical Faculty of Columbia University also emphasizes the psychic factor in the treat-

\* What Would You Do if You Had a Peptic Ulcer? by Reginald Fitz, M. D., from the Medical Clinic of the Peter Bent Brigham Hospital, Boston, Mass.

ment of ulcer.\* Both writers note the adverse effect of fatigue. In history taking of suspected ulcer cases the fatigue element is a very important item.

Patients with ulcer history are great medical shoppers, that is, they go from doctor to doctor or from gastroenterologist to gastroenterologist—a fact apparent to anyone limiting his practice to X-ray work. Where the X-rays are relied upon as an important diagnostic aid, the radiologist should exercise the utmost care before he declares the condition to be functional, with some such finding as "nervous indigestion."

In all justice to the writer of the paper, he realizes the utter inadequacy of the number of cases studied to justify any categorical conclusion. His conclusions or impressions to use his own terms are as follows: The mental attitude of ulcer-bearing patients toward their disease and its management plays an important part in their response to any form of treatment.

.... Worry, fear, anxiety, irritation, or undue fatigue all exaggerate ulcer symptoms. .... A surprising number of ulcer cases get remarkable relief through very simple therapy when the factors of worry and undue fatigue are eliminated, and when the nature of their illness is explained to them. Unsuccessful medical therapy can always be given up for surgical treatment. The surgical treatment of peptic ulcer has an inevitable risk attached to it. A certain number of patients die following even the simplest surgical procedure. The immediate effect of a successful operation for peptic ulcer is remarkably gratifying. Patients gain weight and strength, lose all consciousness of indigestion and ill health, and rapidly reenter the various fields of work in which vitality is of great importance. If such good results were always obtained, were permanent, and if there were no post-operative complications, the surgical methods of treatment would have more adherents.... The unsuccessful results of surgery are almost complete failures. The bridges are pretty well burned by an operation; it is a rare patient with a mal-functioning gastroenterostomy or a gastro-jejunal ulcer who can contemplate with equanimity and hope a second operation.

Focal infection in the shape of diseased teeth or tonsils may play some part in the peptic ulcer picture. Possible foci of infection should be systematically cared for.

"Bearing these impressions in mind," says the writer, "my own conception of the best treatment of peptic ulcer at present available is fairly easy to define. The whole patient, and not only his ulcer, must be treated. He must be given a long period of mental and physical rest, and a simple diet with enough alkali to overcome symptoms. He must plan to lead a well regulated life for months or even years."

With the last sentiment no one who has had any experience with ulcer will disagree. It is not unduly emphasizing it to say that the ulcer patient must plan to lead a well-regulated life as long as he lives, whether the treatment be medical or surgical. Often both methods fail for the very reason that the patient considers himself cured which he interprets to mean that he can indulge with impunity in any kind of regimen or intemperance.

#### MEDICAL HOBBIES

"Many of our physicians go abroad for study and recreation. The thought came to mind that such trips could be made more interesting if one had a proper background. This particularly applies to medicine. There is much of interest in Art, Sculpture, and History which if one had some knowledge previous to a foreign trip would make it more valuable. It seems to me if in our Public Library and Art Museum we could get information and have the opportunity of seeing books, paintings, etchings, photographs and other illustrations of famous institutions such as medical schools and their famous teachers it would be a fine thing. If members of the various county societies who go abroad could have some sort of an understanding with the Library and Art Museum boards by which purchase could be made a beginning in this work could be done. As time went on it would greatly increase in value."

This is an extract from a letter from Dr. W. J. Stapleton, Detroit, Mich. It calls attention to an important matter from the viewpoint of aesthetics or of cultural medicine. Much medical literature is ephemeral in character in as much as it is soon made archaic by subsequent study and research. There are, however, epochal phases of medicine such as Harvey's *De Motu Cordis*, Beaumont's work on digestion and Lister's famous paper on antiseptic surgery which are classics and are therefore not of an age but for all time. Other works of similar or less significance might be mentioned. Members of the medical profession going to Europe might, as Dr. Stapleton intimates, perform a valuable service to their local medical societies by bringing back medical books, particularly old ones of an historical or biographical nature or by procuring medical pictures.

\* The Human Constitution by Dr. George Draper being the Beaumont Lectures delivered before the Wayne County Medical Society, 1928.

Of course they should be selected for their intrinsic and permanent value.

Many physicians are beginning to turn their attention to what might be termed the cultural aspects of medicine as distinguished from the scientific and practical features. Only recently the second annual exhibition of works in the plastic and graphic arts by American physicians was held at the Academy of Medicine in New York. More than eighty physicians submitted about three hundred examples of their work which consisted of water colors, photography, pencil drawings and sketches, hand bound books, marquetry, and other examples of handicraft. So much for constructive hobbies.

#### STANDARDIZATION OF X-RAY APPARATUS

The University of Michigan is offering through the Department of Roentgenology a standardization service to the roentgenologists of the State of Michigan. One of the recent developments in dosimetry is the acceptance of a well defined unit called roentgen unit to be used in the calibration of the output of an X-ray tube. Careful tests have convincingly shown that potential, tube current, treatment distance, filter thickness and time of exposure do not sufficiently define the administered dose. Even if all conditions are alike the emitted X-ray energy differs considerably. The only exact way, therefore, is to measure the actual output of a transformer and tube. While it would be best that an ionization instrument be kept in every laboratory for constant check of the apparatus, it is at least desirable to have such measurements carried out from time to time, particularly if the tube is to be exchanged. The uniform standardization of all machines will facilitate the referring of patients to other laboratories for continuance of the treatment. If all use the same unit to express the administered dose, the majority of the present difficulties can be overcome. Dr. Ernst A. Pohle of the Department of Roentgenology will have charge of the Standardization Laboratory. Upon request the calibration of a machine will be carried out at the earliest possible date. No charges will be made for the service, but it is expected that the actual expenses for the necessary trip will be assured by the requesting roentgenologists. Address all communications regarding this service to the Department of Post-Graduate Medicine, University Hospital, Ann

Arbor, Michigan, envelope marked "Standardization Service."

#### HALDANE APHORISMS

J. B. S. Haldane is one of the foremost scientists of the Anglo Saxon world. He is professor of Biochemistry in the University of Cambridge, England. Haldane has the peculiar and unique faculty of presenting somewhat abstruse subjects in a forceful and lucid way. In other words he is a popularizer of what may be termed technical science. The following sentence extracts are from his latest book, "Possible Worlds," published by Harper and Brothers:

Modern science began with great acts of doubt.

Scientific men agree to suspend Judgment when they do not know.

It was Sir Christopher Wren who invented not only the intravenous injection of drugs, but the transfusion of blood in the year 1659.

Anti-vivisectionists are responsible for far more deaths in England each year than motor vehicles, smallpox or typhoid fever.

Medical research has been the principal cause which renders the worst slum of today healthier than the palace of a century ago.

The desire for intellectual certitude is laudable in the young, as a stimulus to thought and learning; in the adult it easily becomes a vice.

Man must use his reason to arrive at an appropriate diet.... Humanity is engaged in the awkward passage from an instinctive to a rational choice of food.

Early diagnosis of disease is the business of the general public even more than that of the medical profession. To take an obvious case, venereal diseases in their very early stages are easily and rapidly curable but every day's delay renders the case slower and less certain.

#### EXTIRPATE THE QUACKS

(The Detroit Free Press)

It seems almost incredible that medical "quackery" can exist except sporadically in this day when there is plenty of opportunity for everybody to learn to distinguish between what is genuine and what is fake in medical practice, and when clear and reliable information regarding the commoner diseases and what ought to be done when they appear, is everywhere available.

Yet there is no reason to suspect any exaggeration in the reports of the discoveries by local and state officials who are making a drive against quack doctors and fake medical offices, and report that they find them by the score in Detroit and Michigan, for the most part operating on the "chain system" and preying heartlessly and extensively on the unsuspecting, the ill, and the gullible.

Such a business is about as low and contemptible as any in which it is possible to engage. It is a traffic in human health and life. Officials are performing a genuine and important public service by carrying on the drive they are making against medical fakers, and they should push their work through to the end and make a complete cleanup.

### DONATING MEDICAL SERVICES

When it comes down to donating valuable services, without money and without price, the medical man registers one hundred per cent. Everyone else can charge for his services when it comes to welfare or uplift work, but the physician is expected to give his services, technical and valuable though they be, without hope of renumeration. This is all right if the health clinics and other welfare work requiring the services of a physician are for the indigent, but it is all wrong when the valuable services are rendered to those able to pay. A well-known physician who was contributing a day of his busy life to a baby clinic, and getting nothing for it, was dumfounded when he noted that a half dozen children from well-to-do families that he considered as his patrons were brought to the clinic for free service, and in addition were scheduled for free service at an operative clinic. You hear someone say that health is a community asset that must be conserved, and it is up to the community to aid in the promotion of health. Granted! But clothing and food are necessary for the preservation of health, but do you see any clothing merchants donating clothing to cover naked children, or can you get any photographs of food merchants who are donating food for starving children? No! The benevolent and charitable organizations pay for clothing and food which they donate to the indigent and poor, but they do not expect to pay for any medical service, no matter how valuable such service may be. Probably no reputable physician anywhere in this country refuses to render professional aid to the indigent and poor, but he has a right to complain bitterly when his generosity and charity are imposed upon, and that is exactly what is going on every day in every populous community. There are too many so-called welfare organizations that are asking for gratuitous services from physicians, and it is time for the medical profession to insist that a good deal of this welfare work done by volunteer organizations should be in the hands of organized charity with the medical profession having a voice in the manner in which gratuitous medical services shall be rendered.—From the Journal of the Indiana State Medical Society.

### EDITORIAL NOTES

A press item says that the Radio is rapidly winning appeal for itself in the entertainment of patients in New York Hospitals. We can see that there are times when the Radio might encourage convalescence by way of escape particularly when the dinner hour music of some of the hotels was being broadcasted.

Give me a good digestion, Lord, and also something to digest.  
 Give me a healthy body, Lord, with sense enough to keep it at its best.  
 Give me a healthy mind, good Lord, to keep the good and pure in sight,  
 Which, seeing sin, is not appalled but finds a way to set it right.  
 Give me a mind that is not bound, that does not whimper, whine or sigh.  
 Don't let me worry overmuch about the fussy thing called I.  
 Give me a sense of humor, Lord; give me the grace to see a joke,  
 To get some happiness out of life and pass it on to other folk.

—The Churchman.

### EXCERPTS FROM THE MINUTES OF THE MEETING OF THE JOINT COMMITTEE ON PUBLIC HEALTH EDUCATION HELD AT ANN ARBOR, MAY 28, 1928

(Grateful acknowledgements to Dr. W. D. Henderson, Secretary)

Report of the Treasurer of the Joint Committee Publicity Fund of Dr. Warnshuis, Treasurer, showed:

Funds received to date, May 24, 1928:

Michigan State Medical Society	\$1,000
University of Michigan	500
Michigan State Dental Society	500
Michigan Tuberculosis Association	300
Michigan Hospital Association	100
Michigan State Nurses' Association	100

Dr. Warnshuis reported that up to date, May 24, 1928, no vouchers had been drawn against this fund.

A report of the Committee on Publicity. In the absence of Dr. Jackson, Chairman of the Standing Committee on Publicity, Dr. Bruce made a report as to the newspaper publicity program carried on under his direction.

During the past year the Publicity Bureau furnished material for a daily news column in the Detroit News. According to a report of the News officials, this health education service has been entirely satisfactory. Dr. Bruce reported that he had made arrangements with the following newspapers through the Booth Newspaper Syndicate for the publication of daily health articles during the coming year: Ann Arbor News, Bay City Tribune, Flint Journal, Grand Rapids Press, Jackson Patriot, Kalamazoo Gazette, Muskegon Chronicle, and Saginaw News Courier. These papers reach through their various subscription lists a total of over 600,000 persons. It is understood that this service is to begin September 1. The same news item is to be furnished to all papers. Each paper, however, is to have separate and individual answers to inquiries. The various papers mentioned, together with the Detroit News, are to pay a sum equivalent to that which they pay for syndicate articles of a similar nature.

Dr. Bruce called attention to the fact that there are still large areas of the state not reached, as for example, the Upper Peninsula. He outlined briefly a plan for supplying articles to the papers of this region. He also suggested that some plan should be worked out whereby the weekly papers

of the state might have a similar service. Report accepted.

The next business was the discussion of lecture outlines for next year. The following medical health lecture outlines were approved:

The Eye: Conservation of Vision.

The Heart and Its Handicaps.

Mental Hygiene.

Dr. Henderson reported that Dr. Sinai's lecture outline on "The Ear" came to hand too late to be submitted to the Committee. He also reported that the lecture outline on Dental Hygiene which is in preparation by Dr. Seitz of Detroit was not yet finished. It was suggested that this outline when received should be submitted to Dr.

Lyons and Dr. Davis for approval.

Dr. Landers approved the present method of writing the lecture outlines. He suggested the desirability of having groups of doctors who are taking in these high school programs meet occasionally for instruction as to the mechanics of speaking and the psychology of young audiences.

After some discussion of the advisability of making the lecture material more of a skeleton outline and the addition of important facts and bibliographies, it was decided to continue the preparation of the outlines about as submitted, with such additions in the future as might seem wise.

—W. D. Henderson, Secretary.

## "MEDICO, SOCIAL AND ECONOMICS"

### ORGANIZATION AND OVERLAPPING AUTHORITY

DR. C. B. BURR  
FLINT, MICHIGAN

The inhabitants of this once relatively happy land are organized almost to the breaking point with commissions, clubs, associations for the assembling of statistics, "investigating" committees whose output is mostly mischievous and societies for this, that and the other. I know of none looking to the humane treatment of artificial trout flies but this lack may later on be supplied. It is perhaps an extra-hazardous undertaking to turn over in bed without the support of a resolution from some Society for the Disparagement of Insomnia.

In the functioning of a recently formed National organization, the "Federation of Justice," sponsored by Mr. Justice Taft and Vice-President Dawes, there would apparently lie the possibility of distinct public betterment, but the verbosity of its prospectus gives to reel and gasp for breath. Were it to concern itself definitely and wholly with crime-crushing in a crime cursed country, all reputable citizens should hail its appearance with joy approaching the ecstatic, and cooperate to the fullest extent in its purpose. Certainly the wholly admirable Justice Taft has envisioned as few of his fellow citizens the menace of the "Black Army"\*\*—twice the size, according to Judge Kavanagh of the combined Federal and Confederate forces that fought at Gettysburg—as well as the failure of criminal law in meting out justice to the blood-bespattered malefactor.

#### "SUCCESS" SPEAKS FOR ITSELF

However, the prospectus of the Federation offers no such promise. Its questionnaire is staggering in meticulous attention to the unimportant. Propositions (called "facts") are seven in number, and the first of these the most discouraging of the whole list. It is that "this nation is talking much about the failures of justice but saying little about its successes."

\* Vide "The Criminal and His Allies."

Why in the name of all the gods at once should it be concerned with achievement which may be trusted to speak for itself. It would be well to discontinue the popular pastime of putting ourselves on the back and endeavor to look serious. Failures are the only matters over which any enterprise need be worried, and this nation is so crime-ridden that Judge Kavanagh\* discussing the protection of life and property makes the appalling prophecy that *the next five years will decide* whether the American people in this regard are capable of self-government.

#### JUSTICE THWARTED

Venal attorneys in league with gangsters, fly-speck technicalities, unwise reversal of decisions in courts of law, sentimentalism displayed towards the criminal and misconception of the relation of crime and mental disease and defect are among the causes of miscarriage of justice. Judge Kavanagh stresses the lack of swift and sure application of the death penalty in suitable cases. Michigan he cites as in need of this. His position is impregnable. Isn't it time for sensible people to open wide their eyes and unite to rehabilitate good living conditions in this the most crime-steeped among so-called civilized nations? "Go-getting" may well for a time be subordinated to safe-keeping and emotional sobriety be cultivated. A moral sanitarian could hardly escape the conviction from reading Judge Kavanagh's book, that there is dire need of strong soap suds and antiseptics in criminal courts. Little, however, in the opinion of the undersigned, is to be hoped from that intangible something, "pressure of public opinion". Unless it should, regrettably, go over into an organized vigilante movement, it can at best supply but a small thimbleful of elbow-grease to the best element of the legal profession which must manipulate the scrubbing brush. Fatal nation-wide infection threatens.

#### ECONOMIC LOSS BY MENTAL DISEASE

If, as the New York Times reveals: "Mental disease in the United States causes an economic loss of \$300,000,000 a year," it certainly "pre-

\* Op. Cit.

sents a sociological problem of major importance," but that it "should be dealt with by the Federal Government acting in cooperation with the States" is at least open to grave doubt. An example of "cooperation" was given recently in Seneca Falls where Federal agents and local police authorities clashed, the former if my recollection of the newspaper story is correct, being "booed" by the bystanders and escorted out of town. Overlapping authority and jurisdiction are prevalent now all along the border. The theory of States' rights in police matters may be called, for lack of a better name, a "lively corpse".

#### WHY INVESTIGATE THE OBVIOUS?

And least of all things, this country needs what a proposed enactment provides viz. a board composed of twenty physicians at \$25,000 each per year and an appropriation of \$5,000,000 for investigation of an obvious condition. All statistical information of practical importance is now probably available in Mental Hygiene Associations, or may be obtained from reports of hospitals for the insane and the records of departmental bureaus in Washington. What is needed is the differentiation, in courts, of crime from disease and prescription for the former of the proper penalty—if deliberate murder or robbery armed the electric chair or noose. Bills for enactment into laws are usually drawn by lawyers. Judiciary Committees to pass upon questionable provisions are available. Michigan's last legislature had a painful example of the power of this committee in the Senate. There's small excuse for attorneys' pursuing their favorite indoor sport of scrapping over questions of constitutionality.

#### LET US LEARN FROM OTHERS

Attention may expediently be turned to England and Canada for enlightenment upon criminal procedure, and to Germany upon the judicial determination of insanity. In Munich an alleged insane criminal is placed under observation as long as is necessary in the Psychopathic Klinik. His case is studied seriously. The eventual findings of the expert staff are final. What this country lacks in administration of criminal laws is finality, and promptness in the application of punishment when necessary; prompt punishment, I repeat, which notwithstanding the wails of the sub-squad is a deterrent influence upon the habitual criminal "always a monster of selfishness." Not the least important among the public services of an excellent President is speaking out plainly on the "exceedingly disturbing" crime conditions (Memorial Day address at Gettysburg). It is highly significant that he should have deemed this necessary.

—C. B. Burr.

#### MEDICO ECONOMICS

H. B. KNAPP, M. D.

Secretary Calhoun County Medical Society

In the days, when the healing art was largely in the hands of the Priesthood, it is said there was a careless disregard for collections. It seems they depended upon gifts and donations for their income.

The priests have relinquished to the medical

profession the cure of the sick, but the medical man has retained much of the indifference and slipshod methods of accounting and collections formerly a feature of the priesthood craft.

The exacting demands for money by every line of business or profession today makes it quite necessary that the doctor conduct the accounting end of his profession on a business basis somewhat in keeping with other business enterprises. If he fails to do this his income is below what it should be to keep up his post-graduate study, to educate his children and provide for his needs in his old age.

Today every going business concern is connected in some way with a credit rating bureau, and most firms find it necessary and to their material advantage to use these bureaus to encourage the collection of bad accounts. The business man is careful to govern the amount of credit he extends to his trade by the rating of his client.

But the doctor somehow has maintained the attitude that all the world is honest, and that if he is generous enough to give aid to a sufferer, the natural gratitude which results will prompt the patient to pay his bill. But this does not always bring returns. The doctor somehow thinks he is losing business by insisting on prompt payment of bills. So he keeps his patients but loses out on the bills.

Dead beats pay no bills.

If a doctor wishes to be charitable and do free work, that is his privilege. He should tell the patient there will be no charges, and then forget the case so far as money goes. But for the average office call, house call, consultation or operation he should charge a reasonable amount, and let it be known that pay is expected, the same as any other business transaction.

The discovery by the patient that the business relations between he and his doctor are being conducted along lines similar to his business dealings with his lawyer, his grocer, or his garage mechanic, will at least give the doctor an equal chance when the pay check is divided into its proportionate parts.

The organization of a bureau of collections and credit ratings as an official department of organized medical societies will have a salutary effect on those who are inclined to pay the doctor last, if at all. When it becomes known that such an organization exists, the creditor will be careful to keep his name from appearing among those who are delinquent.

By the establishment of a County Medical Society Bureau of Collections and Credits it is proposed that the members turn their bad accounts over to the Society's bonded collector, who will collect these accounts on a percentage basis. As the names of these creditors come to him they will be listed in a confidential credit rating record, and copies of this furnished periodically to each member, with a key number telling exactly who the different doctors are who have bills against the different creditors.

Creditors who never pay, or who owe nearly every doctor in the town, are not entitled to credit, but should be referred to the poor commissioner for his kind consideration, when they need medical attention.

## OUR OPEN FORUM

Affording Opportunity for Personal Expression

## REGARDING OSTEOPATHS

Summarizing the conclusions reached in our conference yesterday in connection with the case of Harry L. Schaffer, and the limitations on osteopathic physicians generally, I submit the following:

1. The use of the title "M.D." by an osteopath is unlawful.
2. The use of the word "doctor" or "physician" unaccompanied by other designating terms is unlawful. It is not unlawful for an osteopath to use the letters "D.C." provided other terms are used in connection with his name plainly indicating that he is a doctor of osteopathy, for example; the words "Dr. John Doe, Osteopath" or "Dr. John Doe, Osteopathic Physician and Surgeon" would, I believe, constitute compliance with the law. Such words or titles should be used as would fairly advise the uninformed person without making specific inquiry whether the practitioner with whom he proposes to deal is a licensed physician or an osteopath. If he prefers to be treated by an osteopath he should be given an opportunity to do so knowingly and advisably and not under any possible misapprehension that he is dealing with a licensed physician.
3. The use of the phrase "House Physician" by an osteopath without other qualifying or explanatory words is unlawful.

4. Whether or not serums in certain infectious diseases may be lawfully administered by an osteopath is somewhat of an open question, it being claimed that serums are administered for curative purposes as well as for immunization. In order to avoid the possibility of prosecution being based upon such a claim, I think it would be advisable for osteopaths to voluntarily refrain from administering serums.

—Prosecuting Attorney, Wayne County.

## COST OF MEDICAL CARE

Dear Doctor Warnshuis:

I have received the letter bearing Dr. Ray Lyman Wilbur's signature as Chairman of the Committee on the Cost of Medical Care and addressed to Dr. Herbert E. Randall of Flint, Mich.

So far as I know, neither the American Medical Association, the Michigan State Medical Society nor any other society can prevent the organization of any group that wishes to organize. The Committee on the Cost of Medical Care was organized and began the work on the program it had outlined for itself. The original group, so far as I am advised, contained only one practicing physician. Later, one or two other physicians were added to the Committee. I was then asked to become a member and took up the matter with the Board of Trustees of the American Medical Association. The matter was considered for one full day by our Committee on Public Relations. It was the feeling of the Board of Trustees, after a discussion by Dr. Wilbur on what was involved and after consideration by the committee composed of Doctors Pusey, Follansbee, Slyster and

Fishbein, that it was perfectly apparent that the Committee on the Cost of Medical Care, largely controlled by laymen, was going right ahead with its program and that it might be possible to help guide the movement if more medical representation could be had. I finally agreed to accept membership on the condition that at least five others, practicing physicians, be added.\* Having been asked to suggest the names of five men, I submitted the names of Doctors Follansbee, Harris, Morgan, Webb and Steiner, and all were duly elected to membership.

The American Medical Association is undertaking to make certain studies on subjects in which the profession is vitally interested. These studies, however, will be made by the Association for its own purposes, but results will be available for the Committee on the Cost of Medical Care.

You can safely say to your Executive Committee that the American Medical Association is trying to discharge its full duty to the profession and that its efforts are more comprehensive than it is given credit for by some who seem disposed to belittle these efforts.

Very truly yours,  
Olin West.

\* I am on the committee, with the other gentlemen named, not as a representative of any organization.

## LIENS

Dear Doctor Warnshuis:

Physicians, nurses, and hospitals, under the laws of Nebraska, are entitled to liens for their services, on moneys receivable by their patients on account of injuries inflicted by third persons on such patients, when the services were necessarily rendered in the treatment of the injuries so inflicted. Other states may have similar legislation, but in states in which there is no such legislation it may be well to consider the advisability of seeking its enactment. To facilitate such consideration, I submit the accompanying copy of the Nebraska statute.

This statute, enacted in 1927, extends to nurses and hospitals the benefits of a statute enacted in 1915, which established liens for physicians only and makes more specific the manners in which liens are to be enforced.

If this matter is of interest to you and I can be of any help in connection with your consideration of it, I shall be glad to have you write to me.

Yours truly,  
Wm. C. Woodward,  
Executive Secretary.  
Bureau of Legal Medicine and Legislation.

## MEDICAL HISTORY

Flint, Mich., May 28, 1927.

To the Officers and Members of  
County Medical Societies:

Dear Sirs:

The undersigned, Dr. Winchester, who is undertaking the preparation of a chapter on "Medical Societies of the Lower Peninsula" and Dr. Burr,

Chairman of the Committee of the State Medical Society, earnestly desire comprehensive histories of County Societies (organization, etc.) for publication in the forthcoming Medical History of Michigan.

In connection therewith, and inasmuch as "society" is merely a designation FOR ITS COMPONENT UNITS, it is urgently requested that the names and characteristics of deserving Doctors in the present and past membership of County Societies be given prominence.

Experiences of the old time physician, anecdotes of practice and community relationships, his contributions to medical and other publications, discoveries or inventions, his habits of thinking, acting and emotional response, his successes or unsuccessful strivings, his personality, peculiarities, aptitudes, pastimes, and the impressions derived from contact with him—any or all of these will be deeply appreciated.

The names and activities of useful members of the profession of other days should be preserved in history. This is little enough reward for a life-time of self-denial and self-sacrifice. Anything concerning them cannot fail to be of value and while yet there are still living, patients, neighbors, and confreres who knew of their works and ways, the recollections of these should be faithfully recorded.

No anecdote however trifling should be withheld and piquant out-givings for which the old-timers were noted will lend to any history a "human document" flavor much to be desired. Furthermore, these may bring to light individuals entirely unknown to the Committee concerning whom further inquiry may be profitably made.

For the information of Dr. Biddle, who has charge of the section on "Military Service of Michigan Physicians," there should be especial mention of army service, whether in the ranks before entering upon practice or in the Medical Corps subsequent to graduation.

The Committee urges that help be furnished from every quarter. Will you do them the great favor to make the contents of this communication known to those who may be interested and sympathetic in its purpose? Please talk about it to others and read it at an early meeting of your County Society. Responses from the Upper Peninsula Counties may be made to Dr. T. A. Felch of Ishpeming, or to Dr. W. K. West of Painesdale, those from the Lower Peninsula to Dr. W. H. Winchester, Genesee Bank Bldg., Flint, Mich.

Thanking you in advance, we are,

Faithfully yours,  
For the Committee  
W. H. WINCHESTER  
C. B. BURR, Chairman.

#### INCOME TAX

Dear Doctor Warnshuis:

As you have already been informed through the pages of The Journal, we lost our fight in Congress for the enactment of legislation that would authorize physicians to deduct in the computation of their federal income taxes expenses incurred in attending meetings of professional organizations. Our fight was lost in the conference committee, and the amendment adopted by the Senate by a large majority in our favor never came before the House of Representatives for a vote.

It may interest you to know that the record of the Senate's vote on the amendment authoriz-

ing physicians to deduct traveling expenses shows that Senator Couzens and Senator Vandenberg both voted in our favor. Possibly a letter of appreciation to let them know that you do appreciate their attitude and that you are in touch with their activities in Congress when they relate to matters of interest to the medical profession, would be wise.

Yours truly,  
WM. C. WOODWARD,  
Executive Secretary

Bureau of Legal Medicine and Legislation.

## NEWS AND ANNOUNCEMENTS

Thereby Forming Historical Records

The Radiological Society of North America will hold its 14th Annual Convention in Chicago, December 3rd to 7th inclusive, 1928. The Drake Hotel, Lake Shore drive and North Michigan avenue has been selected as the headquarters. Much attention is being given to arranging for Scientific and Commercial Exhibits. These exhibits will afford a Post Graduate course of instruction in nearly every branch of Medical Science. Clinics covering Radiological problems as well as other branches of medicine will be given every day during the session.

## UPPER PENINSULA MEDICAL SOCIETY

The thirty-first annual meeting of the Upper Peninsula Medical Society will be held at Newberry, Michigan, August 1st and 2nd. Registration will begin at one o'clock Wednesday, August 1st. At 1 p. m. the convention will be officially opened by Dr. H. E. Perry, President of the Luce County Medical Society. The President's address will be delivered by Dr. E. H. Campbell, Superintendent Newberry State Hospital. The scientific program will be as follows:

"Industrial Medicine," by Dr. F. J. Maloney, Sault Ste. Marie, Michigan.

"Surgery Involving the Sympathetic Nervous System," by Dr. C. F. McClintock, Professor of Anatomy, Histology and Embryology, Detroit Medical College, Detroit, Michigan.

"Auricular Fibrillation," by Dr. A. J. Carlton, Escanaba, Michigan.

"Kidney Conditions," by Dr. George E. McKean, Professor of Medicine, Detroit College of Medicine, Detroit, Michigan.

"Pernicious Anaemia," by Dr. G. C. Stewart, Hancock, Michigan.

August 2nd—Dr. A. M. Barrett—"Mental Diseases." (Clinic) at "Newberry State Hospital."

"Some Complications of Tuberculosis and Their Treatment," by Dr. S. Lojacano, Superintendent Morgan Heights Sanitorium, Marquette, Michigan.

"Constipation and Diarrhea," by Dr. Clifford G. Grulée, Professor of Pediatrics, Rush Medical College, Chicago, Ill.

"Hypertension," by Dr. John T. Kaye, Menominee, Michigan.

"Prompt Treatment of Compound Fractures," by Dr. Hugh Cabot, Dean and Professor of Sur-

gery, University of Michigan, Ann Arbor, Michigan.

The program will be followed by the business meeting and election of officers.

All meetings will be held at the Community Building except Dr. Barrett's Clinic, which will be held at the Newberry State Hospital. A special program of entertainment is being arranged for the ladies.

A golf tournament will take place at the Newberry Country Club, at 8 P. M. on Thursday.

Banquet at Community Building for members and their ladies will be held 6:30 p. m. Wednesday, followed by a dance in the ballroom of the Community building.

## DEATHS

### DR. E. C. VANSYCKLE

Dr. E. C. VanSyckle of Detroit died in Providence Hospital on May 12th, of pneumonia. Dr. VanSyckle was born in Ontario 63 years ago. He graduated from the Detroit College of Medicine in 1906 after which he located on the west side of the city, where he was engaged in general practice. He is survived by his wife and one daughter.

### DR. GEORGE M. WALDECK

Dr. George M. Waldeck of Detroit died May 30th after an illness extending over several months. Dr. Waldeck was born July 19, 1884, in Milwaukee, where his parents still live. He studied two years at the University of Wisconsin, and later at the University of Michigan, being graduated at Ann Arbor in 1908, after which he spent a year of study in Vienna. Coming to Detroit to practice, he became an associate of Dr. Walter Parker, which association continued for several years before going into practice by himself.

Dr. Waldeck was a member of the American College of Surgeons, the American Medical Association, Michigan State Medical Society, the Wayne County Medical Association, the Ophthalmological Association, the Oto Laryngological Association. He was a member of Corinthian Lodge, of the Detroit Athletic Club, Detroit Country Club, the Indian Village Club and the Phi Beta Pi Fraternity. He is survived by his wife who was Miss Marjorie Paterson.

### DR. CHARLES GIRARD

Doctor Charles Girard of Spalding died June 1, 1928. Dr. Girard has been a resident of Spalding for the past seven years. He was 70 years old and death was due to a goiter and complications. Dr. Girard was educated in Victoria College, Montreal and came to Florence, Wis., in 1881 where he began the practice of medicine. Later, he removed to Powers, and from there to Escanaba where he practiced for 29 years, and for the last seven years he has practiced at Spalding. He is survived by his wife and two sons and four daughters.

### DR. HARRY E. SHAVER

Dr. Harry E. Shaver of Boyne City died May 15, 1928. Dr. Shaver was stricken while visiting

the Lockwood hospital in Petoskey. The news of his sudden death was a shock to his large number of friends. He was born in Stratford, Ont. in 1878, educated a physician at the Toronto University. Dr. Shaver came to Boyne City in 1900 and was the oldest in point of service of the physicians located there.

### DR. RUSSELL J. COLLIER

Dr. Russell J. Collier of Vicksburg died May 28, 1928. Dr. Collier was born December 28, 1896. He graduated from the Vicksburg high school and then attended the University of Michigan, graduating in medicine in 1920. Death followed a week's illness that had its start with influenza and a sinus infection. Dr. Collier is survived by his wife and two children.

### DR. CHARLES W. GOFF

Dr. Charles W. Goff, 84 years old, who had practiced medicine in Montrose for the last 60 years, and retired in April, died at his home May 22, 1928. Dr. Goff is survived by three sons.

### DR. M. F. DOCKERY

Dr. M. F. Dockery of Iron Mountain, died January 23, 1928.

## SURGEON CALLS SPLEEN ELECTRO-MAGNETIC FILTER

Another explanation of the purpose of the spleen, the organ that the ancients removed from their runners to give them, theoretically, better wind, has been advanced by Dr. William L. Robinson of Toronto. The function of this mysterious organ that many people seem to get along very well without, is a sort of electro-magnetic filter, according to Dr. Robinson, that removes from the blood such waste particles as broken-down red blood cells, certain colloidal toxins and negatively charged bacteria. This conclusion is based on experiments in the course of which compounds containing negatively charged silver and platinum and positively charged copper were administered to experimental animals in the laboratory. The first two elements were eliminated through the customary channels, but the copper was retained, Dr. Robinson explained, by the electro-magnetic properties of the spleen acting as a filter.—Science Service.

The relationship between lack of sufficient food and tuberculosis has been definitely proved by Dr. Harry Schutze and Dr. S. S. Zilva of the Lister Institute, London. In their experiments with tuberculosis in guinea pigs during the last six years they have found that diet is a very important factor. They divided their animals into two sets; one set was given a complete normal diet, with abundance of food, and the other set had a similar diet but restricted in amount. The guinea pigs on the restricted diet did not put on weight, whereas the others did. After two and one-half months of dieting, all the animals were inoculated with a living culture of tubercle bacilli, in order to test their resistance. In each case the animals on the abundant diet lived twice as long as those on the restricted diet. In guinea pigs at any rate, plenty of food helps to keep the body free from the ravages of tuberculosis.—Science Service.

# COUNTY SOCIETY ACTIVITY

Revealing Achievements and Recording Service

EDITOR: Frederick C. Warnshuis, M. D.

Secretary Michigan State Medical Society

## MEMBERS REGISTERING AT THE DETROIT POST-GRADUATE CONFERENCE

A list of members, representing 36 counties, who registered at the Post-Graduate Conference held in Detroit in May is herewith recorded:

### ROSTER—POST GRADUATE CONFERENCE, DETROIT

#### BAY COUNTY

Ash, Charles W., Bay City.  
Grosjean, Joseph C., Bay City.  
Gustin, J. William, Bay City.  
Sherman, R. N., Bay City.  
Smith, D. P., Omer.  
Tupper, V. L., Bay City.  
Weston, Daniel, Akron.

#### BERRIEN COUNTY

Mitchell, Carl A., Benton Harbor.

#### BRANCH COUNTY

Far, S. E., Quincy.  
Schultz, S., Coldwater.  
Wade, R. L., Coldwater.  
Williams, W. W., Coldwater.

#### CALHOUN COUNTY

Case, James T., Battle Creek.  
Cooper, J. E., Battle Creek.  
Fahndrich, C. G., Battle Creek.  
Heald, C. W., Battle Creek.  
Hoyt, A. A., Battle Creek.  
Serio, P. P., Albion.  
Sharp, A. D., Albion.  
Walters, F. R., Battle Creek.  
Welch, R. A., Bellevue.  
Zelinsky, Thos., Battle Creek.

#### CLINTON COUNTY

Scott, W. A., St. Johns.

#### EATON COUNTY

Burleson, A. H., Olivet.  
Dean, Carleton, Eaton Rapids.  
Sassaman, F. W., Charlotte.

#### GENESEE COUNTY

Adams, C. H., Goodrich.  
Burnell, B. E., Flint.  
Burnell, Max, Flint.  
Briggs, Guy D., Flint.  
Clark, C. P., Flint.  
Curry, George J., Flint.  
Edgerton, A. C., Clio.  
Evers, J. W., Flint.  
Jickling, D. S., Flint.  
Malfroid, B. W., Flint.  
McArthur, A., Flint.  
Orr, J. W., Flint.  
Randall, H. E., Flint.  
Reid, Wells C., Goodrich.  
Rosenthal, Arthur M., Flint.  
Wall, W. J., Davison.  
Wright, A. G., Fenton.

#### GOGEBIC COUNTY

Reineking, W. C., Ironwood.

#### GRATIOT-ISABELLA-CLARE COUNTY

Baskerville, C. M., Mt. Pleasant.  
Bordstetter, M. F., Mt. Pleasant.  
Budge, M. J., Ithaca.  
Burch, L. J., Mt. Pleasant.  
Du Bois, Charles F., Alma.  
Graham, F. J., Alma.  
Highfield, E. M., Alma.  
Hobbs, A. D., St. Louis.  
Rondot, E. F., Lake.  
Smith, R. B., Alma.

#### HOUGHTON COUNTY

Harkness, Robert B., Houghton.  
Wickliffe, T. P., Lake Linden.

#### HURON COUNTY

Monroe, D. J., Elkton.  
Morrison, W. T., Pigeon.

#### INGHAM COUNTY

Bauer, Theo. I., Lansing.  
Bruegel, O. H., East Lansing.  
Christian, L. G., Lansing.  
McIntyre, J. E., Lansing.  
Vanderzalm, T. P., Lansing.

#### IONIA-MONTCALM

McCann, J. J., Ionia.  
Pankhurst, C. T., Ionia.  
Swift, E. R., Lakeview.

#### JACKSON COUNTY

Faust, W. K., Grass Lake.  
Hackett, Thomas E., Jackson.  
Hungerford, P. R., Concord.  
Hurley, H. L., Jackson.  
Leahy, E. O., Jackson.  
O'Meara, J. J., Jackson.  
Munro, C. D., Jackson.  
Peterson, E. S., Jackson.  
Roberts, A. J., Jackson.  
Robinson, D. E., Jackson.  
Stewart, M. N., Jackson.  
Townsend, J. W.

#### KALAMAZOO COUNTY

Aach, Hugo, Kalamazoo.  
Barrett, F. Elizabeth, Kalamazoo.  
Boys, C. E., Kalamazoo.  
Crane, A. N., Kalamazoo.  
Giffen, J. R., Bangor.  
Hubbell, R. J., Kalamazoo.  
Jackson, John B., Kalamazoo.  
Maxwell, J. E., Decatur.  
McNabb, Arthur A., Lawrence.  
Rogers, L. V., Galesburg.  
Stewart, John D., Hartford.  
Stewart, Leonard H., Kalamazoo.  
Westcott, Leo E., Kalamazoo.

#### KENT COUNTY

Boet, F. A., Grand Rapids.  
Bolender, J. E., Sparta.  
Brook, J. D., Grandville.  
Collisi, Harrison S., Grand Rapids.  
Corbus, Burton R., Grand Rapids.  
De Jong, C., Grand Rapids.  
Hebard, Charles G., Grand Rapids.  
Helms, Jacob, Grand Rapids.  
Menees, Thomas O., Grand Rapids.  
Miller, Margaret A., Grand Rapids.  
Moore, V. M., Grand Rapids.  
Smith, Richard R., Grand Rapids.  
Thompson, Athol B., Grand Rapids.  
Torgenson, W. R., Grand Rapids.  
Votey, F. A., Grand Rapids.  
Warnshuis, F. C., Grand Rapids.  
Whinery, Joseph B., Grand Rapids.  
Williams, Alden, Grand Rapids.

#### LAPEER COUNTY

Best, H. M., Lapeer.  
Gift, W. A., Marlette.  
Metz, Henry G., Lapeer.  
O'Brien, D. J., Lapeer.  
Scott, J. W., Lapeer.  
Zemmer, H. B., Lapeer.

#### LENAWEE COUNTY

Chase, A. W., Adrian.  
Marsh, R. G. B., Tecumseh.  
Whitney, O., Adrian.

#### MACOMB COUNTY

Bowen, A. B., Armada.

Curlett, J. E., Roseville.	WAYNE COUNTY
Norton, W. H., Mt. Clemens.	Adler, Leopold.
Sturm, Fred A., St. Claire Shores.	Agins, Jacob.
Thompson, A. A., Mt. Clemens.	Allen, Norman M.
<b>MANISTEE COUNTY</b>	Allen, W. O.
Oakes, E. A., Manistee.	Amberg, Emil.
Robinson, H. D., Manistee.	Anderson, Walter T.
<b>MECOSTA COUNTY</b>	Appelbe, Wm.
Franklin, B. L., Remus.	Axelson, A. U.
<b>MONROE COUNTY</b>	Bach, W. F.
Acker, Wm. F., Monroe.	Bacon, Vinton A.
McMillan, J. H., Dundee.	Bagley, H. E.
Meek, H. L., Dundee.	Bailey, Don A.
Newcomb, S. O., Ida.	Baker, Clarence.
Smith, William A., Petersburg.	Baker, George J.
<b>MUSKEGON COUNTY</b>	Ballard, S. W.
Bartlett, F. H., Muskegon.	Barnett, Louis L.
Marshall, F. B., Muskegon.	Baumgarten, E. C.
<b>O. M. C. O. R. O. COUNTY</b>	Bell, John N.
Abbott, Frank E., Sterling.	Bell, Wm. M.
<b>NEWAYGO COUNTY</b>	Berge, C. A.
Branch J. C., White Cloud.	Berman, Harry S.
<b>OAKLAND COUNTY</b>	Bernard, W. G.
Burt, F. J., Holly.	Bernstein, E. D.
Church, John E., Pontiac.	Bicknell, N. J.
Corbit, Aileen B., Oxford.	Birkelo, C. C.
Galbraith, Stuart E., Pontiac.	Bittker, I. Irving.
Grimmett, R. S., Rochester.	Blanchard, F. N.
Harvey, Campbell, Pontiac.	Bleier, Joseph.
Hume, T. W. K., Auburn Heights.	Bloom, Arthur R.
Mooney, C. A., Ferndale.	Boehm, John D.
Stimpson, E. K., Pontiac.	Bogan, James H.
Uloth, M. J., Ortonville.	Bookmyer, R. H.
Wilson, S. F., Birmingham.	Braun, Lionel.
<b>OTTAWA COUNTY</b>	Breitenbach, L. P.
Stickley, A. E., Coopersville.	Brines, O. A.
Westrate, William, Holland.	Brooks, Clark D.
<b>SAGINAW COUNTY</b>	Broudo, Philip H.
Button, Aaron, Saginaw.	Brown, G. Van Amber.
Campbell, L. A., Saginaw.	Brunk, A. S.
Ernst, A. R., Saginaw.	Brunk, C. F.
Grigg, Arthur, Saginaw.	Buchanan, W. Paul.
Harvie, L. C., Saginaw.	Buller, H. L.
McLandress, J. A., Saginaw.	Buesser, Frederick G.
McKinney, Alexander R., Saginaw.	Bundy, George.
Moon, A. Raymond, Saginaw.	Burgess, Jay M.
Powers, J. H., Saginaw.	Burnstine, Julius Y.
Rowe, Bert B., Saginaw.	Burnstine, Perry P.
Stegeman, W., St. Charles.	Butler, Harry J.
Stewart, G. W., Saginaw.	Butler, L. H.
Toshach, Clarence E., Saginaw.	Butler, Volney N.
Windham, P. S., Saginaw.	Campbell, Don M.
Yntema, Stuart, Saginaw.	Campbell, Duncan.
<b>SANILAC COUNTY</b>	Campbell, Mary B.
Learmont, H. H., Croswell.	Campbell, M. D.
<b>SCHOOLCRAFT COUNTY</b>	Carlucci, P. F.
Shaw, George A., Manistique.	Caroll, E. H.
<b>SHIAWASSEE COUNTY</b>	Catherwood, A. E.
Blue, J. J., Owosso.	Chapman, A. L.
Hume, A. M., Owosso.	Charters, J. H.
Wood, W. E., Owosso.	Chester, J. L.
<b>ST. CLAIR COUNTY</b>	Chrouch, Laurence A.
Burley, J. H., Port Huron.	Clark, Harry L.
Caster, E. W., Yale.	Clark, L. E.
Grice, Lewis W., Armada.	Clark, R. L.
MacPherson, C. A., St. Clair.	Cleland, James.
<b>TRI COUNTY</b>	Clinton, William R.
Smith, W. Joe, Cadillac.	Cohoe, Don A.
Moore, S. C., Cadillac.	Coleman, Margarete.
<b>TUSCOLA COUNTY</b>	Collins, A. N.
Johnson, O. G., Mayville.	Connelly, Basil.
Merriman, Henry H., De Ford.	Cook, Henry H.
Morris, Frank L., Cass City.	Coolidge, Maria B.
Petrie, William P., Caro.	Cowan, Wilfrid.
Spohn, U. G., Fairgrove.	Cramson, Max A.
Young, S. B., Cass City.	Cree, Walter J.
<b>WASHTENAW COUNTY</b>	Crittenden, C. L.
Britton, H. B., Ypsilanti.	Cunningham, J. W.
Canfield, R. Bishop, Ann Arbor.	Cumming, Robert E.
Donaldson, S. W., Ann Arbor.	Curtis, J. D.
Huntington, H. G., Howell.	Danforth, Mortimer.
Newburgh, L. H., Ann Arbor.	Daniels, Lewis E.
Sigler, H. L., Howell.	Davidson, Edward C.
Soller, M. E., Ypsilanti.	Davis, James E.
Sundwall, John, Ann Arbor.	Defnet, W. A.
Woods, James J., Ypsilanti.	De Foe, W. A.
	De Forest, Alice M.
	Delbridge, J. J.
	Dempster, J. H.
	Dibble, Harry F.
	Dibble, John B.
	Dillard, M. P.
	Dix, Ira J.
	Dodds, John C.
	Domzalski, C. A.
	Doty, A. G.
	Doub, Howard P.
	Douglas, Bruce H.
	Dutton, Charles A.
	Eder, L. F.
	Eisman, C. H.
	Fallis, L. S.
	Fay, George E.
	Fenech, Harold B.
	Finn, Eva M.
	Fitzgerald, E. W.
	Flora, Wayne W.
	Foster, Owen C.
	Foster, R. F.
	Foster, T. J.
	Fowler, Wm.
	Freeman, Thelma.
	French, Albert L.
	Friedlaender, B.
	Galdony, L.
	Gariepy, L. J.
	Geib, L. O.
	Geib, O. D.
	Gellert, I. S.
	Gerow, Katherine.
	Gittlin, Charles.
	Gittins, P. C.
	Glenn, Bernard H.
	Glowacki, Ben F.
	Goldberg, S. E.
	Goldstone, R. R.
	Gostanian, J.
	Green, E. R.
	Greenwood, J. H.
	Greiner, B. A.
	Guimaraes, A. S.
	Hackett, Wm. A.
	Hagens, Marcus.
	Hale, Arthur S.
	H'Amada, Norman K.
	Hamilton, J. D.
	Hammond, H. J.
	Hammond, James L.
	Hanna, E. Howard.
	Hanna, S. C.
	Hansen, Frederick E.
	Hanser, J.
	Harm, W. B.
	Harris, Albert E.
	Harrison, Henry.
	Hawkins, J. W.
	Henderson, Harold.
	Henderson, Leslie T.
	Henry, L. L.
	Hildebrandt, H. R.
	Hislop, Robert.
	Hirschman, Louis J.
	Hodge, James B.
	Hoff, E. C.
	Holaday, C. H.
	Hollinger, C. O.
	Honhart, F. L.
	Hoobler, B. R.
	Hromadra, Louis.
	Hughes, R. W.
	Hull, R. C.
	Hulse, W. L.
	Inslev, Stanley W.
	Israel, J. Hubert.
	Jackson, F. D.
	Jarre, H. A.
	Jentgen, L. G.
	Johnson, W. Harold M.
	Joinville, Euclid V.
	Jones, Morrell.
	Kallman, David.
	Karr, Herbert S.
	Kass, J. B.
	Kaye, A. H.
	Keane, William.
	Keating, Thomas F.
	Kedney, H. I.
	Kennedy, C. S.
	Kenning, J. C.
	Kernick, Melvin O.
	Kerster, A. G.
	Kerzmann, Harry M.
	Kirschbaum, Harry.
	Knaggs, Charles W.
	Knapp, J. G.
	Kohn, Martin E.
	Kuhn, Charles F.
	Lakoff, Charles B.
	La Marche, Norman O.
	Lamley, G. H.
	Larsson, B. H.
	Lauppe, E. H.
	Lawrence, Wm. C.
	Leion, I. H.
	Leithouser, D. J.
	Lemley, Clark.
	L'Esperance, S. P.

Levitt, Edward J.  
 Levitt, J.  
 Lewis, J. Hugh.  
 Lewis, Sol M.  
 Liddicoat, A. G.  
 Lieberman, B. L.  
 Lim, W. K.  
 Lipkin, Ezra.  
 Lipsky, J. S.  
 Livingston, Geo. M.  
 Loranger, C. B.  
 Loucks, R. E.  
 Lutz, Earl F.  
 MacArthur, Nelson.  
 MacCraken, W. H.  
 MacGhee, Charles M.  
 MacGregor, Wm. M.  
 MacKenzie, Earle D.  
 McAfee, Fred W.  
 McAlister, G.  
 McAlpine, Archibald D.  
 McAlpine, Gordon S.  
 McClintic, C. F.  
 McColl, C. W.  
 McCormick, W. H.  
 McGarvah, J. A.  
 McGraw, Arthur B.  
 McKean, George E.  
 McKean, Richard M.  
 McLean, Angus.  
 McPhail, Frank L.  
 McPherson, R. J.  
 Maloney, John A.  
 Mancuso, V. S.  
 Marsh, A. R.  
 Martin, H. L.  
 Matulaitis, Francis.  
 Maus, H. J. C.  
 Mayer, E. V.  
 Mayer, W. D.  
 Mayne, C. H.  
 Merkel, Charles C.  
 Merritt, E. D.  
 Mihran, N. K.  
 Miller, Hazen L.  
 Miller, J. A.  
 Miller, M. P.  
 Mills, E. P.  
 Moehlig, Robert C.  
 Moffat, Gordon B.  
 Moisides, V. P.  
 Mollica, Stephen G.  
 Moore, J. A.  
 Morris, Keith M.  
 Mott, C. P.  
 Mudd, Richard D.  
 Myers, Geo. P.  
 Neary, J. H.  
 Neggo, J. A.  
 Newcomb, Elizabeth M.  
 Newfield, L. L.  
 Nittis, S. T.  
 O'Brien, E. J.  
 Olney, H. E.  
 Oman, Cyrus F.  
 Ormond, John K.  
 Palmer, H. G.  
 Palmerlee, Geo. H.  
 Pangburn, L. E.  
 Panzner, E. J.  
 Parmeter, Rolland.  
 Pasternacki, B. W.  
 Paull, Chester A.  
 Peacock, Lee W.  
 Penberthy, Grover C.  
 Perkin, Frank S.  
 Perkis, H. L.  
 Peirce, H. W.  
 Phillips, F. W.  
 Pickard, O. W.  
 Pierce, Frank L.  
 Pierson, Merle.  
 Pinney, Lyman J.  
 Piper, C. C.  
 Poos, Edgar E.  
 Porretta, F. S.  
 Potter, Lewis S.  
 Potter, Willis A.  
 Potts, Enos A.  
 Priborsky, Benj. H.  
 Price, A. H.  
 Raynor, H. F.  
 Reed, H. Walter.  
 Reinbolt, Charles A.  
 Reveno, William S.  
 Richey, E. B.  
 Robb, E. L.  
 Robb, J. Milton.

Robbins, E. R.  
 Robinson, Fred L.  
 Root, C. T.  
 Rosenman, J. D.  
 Rosenthal, Jacob.  
 Roth, Edward T.  
 Runo, Norman H.  
 Rupp, J. R.  
 Ryan, W. D.  
 Sadi, L. M.  
 Saltzstein, Harry C.  
 Sanders, A. W.  
 Sanderson, A. R.  
 Sanderson, Herman K.  
 Sanderson, S. E.  
 Sanderson, Susanne.  
 Schinagel, Geza.  
 Schultz, R. F.  
 Sciarriino, Stalney V.  
 Seibert, A. H.  
 Semmens, A. W.  
 Sewell, George.  
 Seymour, W. J.  
 Sharer, Charles H.  
 Shaw, R. G.  
 Shawan, H. K.  
 Sherwood, De Witt L.  
 Shilkovsky, H.  
 Shore, O. J.  
 Shute, R. J.  
 Silver, M. D.  
 Silvarman, Israel Z.  
 Simpson, C. E.  
 Skinner, Charles E.  
 Skinner, W. C.  
 Slaugenhoupt, J. A.  
 Smeck, A. R.  
 Smith, Charles E.  
 Smith, David C.  
 Smith, F. Janney.  
 Smith, H. L.  
 Smith, James A.  
 Spalding, Edward D.  
 Spencer, F.  
 Stapleton, Wm. J.  
 Steinberger, Eugene.  
 Stern, L. D.  
 Stockwell, G. W.  
 Stokfisz, T.  
 Stone, D. D.  
 Stone, Robert S.  
 Sugar, David F.  
 Sutherland, J. M.  
 Texter, Elmer C.  
 Thompson, Holland.  
 Tibbals, Frank B.  
 Townsend, K. E.  
 Trask, H. D.  
 Truesdell, C. E.  
 Turner, Alexander G.  
 Tyson, Wm. E. E.  
 Ulbrich, Henry L.  
 Vander Velpen, Arthur.  
 Vardon, C. C.  
 Vardon, Edward M.  
 Varney, H. R.  
 Vernier, Jean A.  
 Waddington, J. E. G.  
 Waerner, Rudolph.  
 Walker, J. Paul.  
 Walker, Roger.  
 Wallace, W. B.  
 Walls, Arch.  
 Ward, G. F.  
 Warren, Wadsworth.  
 Watkins, John Taylor.  
 Weller, Charles N.  
 Wendel, Jacob S.  
 Weyher, R.  
 Wershaw, Max.  
 Wickham, A. B.  
 Whittaker, Alfred H.  
 Wicht, F. B.  
 Williams, C. J.  
 Williams, Mildred C.  
 Wilson, H. M.  
 Wilson, Walter T.  
 Wisner, Harold E.  
 Wittenberg, S. S.  
 Wood, G. H.  
 Woods, H. B.  
 Woods, W. E.  
 Woodworth, Wm. P.  
 Wright, W. G.  
 Yates, H. W.  
 Yesayan, H. G.  
 Zimmerman, I. J.

## COST OF MEDICAL CARE

Dr. F. C. Warnshuis, Secretary,  
 Michigan State Medical Society,  
 Dear Doctor Warnshuis:

The Committee on the Cost of Medical Care, under the chairmanship of Dr. Ray Lyman Wilbur, and composed of a number of physicians, public health workers, economists and statisticians from various parts of the country, is engaged in making a study of the cost of sickness.

Dr. Sinai of the staff of the committee has already begun upon one of the important studies to be made under its auspices and will soon begin his work in your state. As a member of the Committee on the Cost of Medical Care and at the request of the Committee, I bespeak your kind consideration of Dr. Sinai and your co-operation in the work he is undertaking. It is the plan of the committee to conduct a series of studies extending over a period of five years and to make the most complete examination possible into the costs of medical care. I am assured that the directing officers of the committee have no preconceived ideas, no theories to prove, but that an earnest effort is to be made to get facts and to interpret these facts clearly and in a helpful manner.

In my own opinion the proposed studies that are now being made and that are to be made are important and will be helpful in removing the impression which seems to exist in the popular mind that the biggest part of the cost of medical service is that involved in the physician's fee. I am convinced that that popular impression is wrong and that when all the facts are brought out, it will be shown that the physician's fee is not the major factor in the situation as it seems to exist today.

Dr. Sinai and his associates will undertake to check each case coming under their attention in even minor particulars, and will seek the co-operation of individual physicians in developing the real facts. It will be helpful if you, as Secretary of the Michigan State Medical Society, will do what you can to secure the co-operation of individual physicians and with them give proper guidance to this movement.

This letter is addressed to you by me as a member of the Committee on the Cost of Medical Care and in keeping with my promise to the committee and is not written by me as a member of the official personnel of the American Medical Association.

Very truly yours,

Olin West.

## SOCIAL MEDICINE

The appended correspondence is imparted for our members' information and also to commend Dr. Jackson's position. But we wonder how many there are who make these examinations for two dollars? There are doctors who yell and rant about socialized or state medicine, but in their very offices they aid its institution because of compliance with schemes such as this one. Unless you have the stamina to resist these "bids" you 'ere long will be dominated by this and other agencies—now what have you to say about that?

May 28, 1928.

Dr. F. C. Warnshuis,  
Grand Rapids, Mich.

Dear Doctor Warnshuis:

I am sending you a copy of some correspondence that I have had with the Equitable Life Assurance Company.

You may make any use of it that you see fit or disregard it entirely.

Yours sincerely,  
John B. Jackson.

HEALTH CONSERVATION SERVICE  
THE EQUITABLE LIFE ASSURANCE SOCIETY  
of the United States, New York City

This service is offered to policyholders of the Equitable, under the conditions mentioned on the reverse side of this memorandum, in the form of a periodical physical examination, the purpose of which is to detect any physical impairment or pathological condition, perhaps unsuspected, to the end that it may be checked in its incipiency. The routine of the Service is as follows:

- 1 Policyholders will call on the Doctor at his office during regular office hours, and will present a letter from the Society as authority for the examination. They will also present a short medical form, sample herewith, which contains on the first page a statement of health and clinical history, and on the reverse side provides space for the Doctor's findings. The first page of the blank will be filled out by the policyholder in advance of his call.
- 2 The report, after it has been completed by the Doctor, will be treated as strictly confidential and not disclosed to any person, but will be mailed by the Doctor direct to this office in New York.
- 3 A specimen of urine will be forwarded to this office by the applicant in a container which you will furnish him. A supply of these containers will be forwarded direct to you from this office and will be replenished when necessary upon receipt of advice from you.
- 4 While the examination is short, it is sufficiently thorough to enable an intelligent opinion to be formed of existing physical conditions. The Equitable physician, however, is not expected to offer medical advice, but the report will be reviewed at this office, and wherever need apparently exists, the policy-

holder will be told to seek medical advice.

- 5 The fee for this short form of Health Conservation Service is \$2 per examination, and payment therefor will be made the first of each month direct from this office on examinations received here.

Arthur Geiringer, M. D.  
Associate Medical Director

May 18, 1928.

Health Conservation Service,  
The Equitable Life Assurance Society of the  
U. S. A.,  
New York, N. Y.

Gentlemen:

I have your communication of recent date, calling my attention to the Health Conservation Service, offered to policyholders of the Equitable Life Assurance Society. I believe that this effort on your part to conserve the health of your policyholders is a most commendable thing and in line with the many forward movement for the health conservation being carried out at the present time.

Like many other such movements, however, it is to be carried on at the expense of the physician as your local examiner. You have asked me, for two dollars, to make a complete physical examination of the patient and send you a written report on the same. This fee is considerably less than we would charge for private cases and I see no reason why the services should be rendered for an insurance company for this fee. I have for many years been interested in medical organization in this state and last year served the Michigan State Medical Society as its President. In the name of organized medicine, I wish most vigorously to protest against the fee offered by your organization for the service which you request. I shall not be available for such services at this fee.

Yours sincerely,  
John B. Jackson.

May 22, 1928.

Dr. John B. Jackson,  
Kalamazoo, Michigan.

My dear Doctor Jackson:

We wish to advise you that you need not give service in the capacity of Health Conservation Examiner for the Equitable if you do not wish to do so. If any policyholder should happen to call at your office refer them to this Department for further instructions.

We have thousands of examiners throughout the United States co-operating in this Service to policyholders at the fee mentioned. There have been but very few exceptions where the Doctor has been unwilling to serve. However, your refusal will have no effect upon your standing as an insurance examiner for the Company.

Very truly yours,  
A. Geiringer, M. D.  
Associate Medical Director.

## MICHIGAN HOSPITAL HANDBOOK

The Michigan Hospital Association has just published, with Dorothy Ketcham as author, the Michigan Handbook of Hospital Law. The book itself, although primarily designed for use in Michigan, would be of value to any physician or hospital executive who has the problems of Hos-

pital practice, the soliciting of funds and donations, conditions governing incorporation, inspection, insurance, employment, the status of aliens, workmen's compensation, the removal of dead bodies, autopsies, the consent for operative work, et cetera. The national, state and local agencies used in hospital and allied fields with the service given form one of the appendices. A digest of the laws affecting the registration, licensing and practicing of medicine and nursing in the state as well as the conditions for Hospitals approved for interne training by the American Medical Association and a directory of Hospitals in the States make additional appendices.

The Handbook is clear, concise, up to date and complete at this time. While primarily designed for use in the State, it is the first book of its sort to gather together briefly and topically many of the confused and difficult situations arising in the Hospital practice. In Michigan there are some 286 Hospitals representing institutions for the insane as well as general and special hospitals. There are perhaps 34,773 beds, 12,472 in general hospitals serving 4,012,659 people of the State. The institutions vary widely in size and service rendered, from the one or two-bed adjunct to the physician's practice to the large State institutions, from the institution furnishing barely room and board, to the completed modern hospital with every facility and thought for the patient's care.

A capital investment of millions of dollars is made in these institutions, thousands of people come to them each year for assistance and such an aid to orderly thinking as is found in the Handbook is well worth attention.

#### FOURTH DISTRICT POST-GRADUATE CONFERENCE

The Post-Graduate Conference for the Fourth District conducted by the State Society was held in St. Joseph at the New Hotel Whitcomb on the 31st of May. The program opened at 10:30 a. m.

The opening statement was by C. F. Boys of Kalamazoo, Councilor for this District.

"Basal Metabolism Study in Goitre," J. B. Jackson, of Kalamazoo.

This was a well prepared talk taken from a large series of cases paying special attention to the relation of pulse pressure to basal metabolism. The study was interesting and the results consistent. Work of this type helps to make more stable the results of basal metabolism tests.

"Artificial Feeding of Infants," T. D. Gordon, of Grand Rapids.

Dr. Gordon's talk was one of the most concise and sensible expositions of infant feeding that one could desire. From the standpoint of the general practitioner who must do a certain amount of infant feeding, this talk was very instructive.

"Pelvic Infections," G. Van Amber Brown, of Detroit.

This subject, presented from a surgeon's viewpoint, was a masterful presentation. Dr. Brown's ideas of drainage to some extent are quite revolutionary, and yet are well supported argumentatively. Discussion was cut short on Dr. Brown's paper by the dinner hour.

There were 45 present at the dinner luncheon which was also a social hour. Many of the men attending came from some distance and enjoyed visiting with men from the neighboring counties.

With the coffee Dr. Warnshuis arose to tell the attending physicians what the state and county organizations meant to them. To those who feel that \$10.00 is too much for state dues, a talk of this type from Dr. Warnshuis will surely open your eyes and pocketbooks. There is no question but what we all get more than our money's worth, and that to accomplish what has been, and is being, done for the membership must mean that an efficient, business-like method of administration is being carried on. The protection of organized medicine to the individual may be likened to centralized government. Without it there would be chaos in health administration and discouragement and empty pocketbooks to the practicing physicians. A rising applause was given Dr. Warnshuis and it was the consensus of all those present that the state organization is indeed fortunate to have such a worthy secretary.

After a short intermission the afternoon program was started on schedule. About 20 more men were present for the afternoon meeting.

"X-ray in the Diagnosis of Gall-Bladder" was the topic which Dr. Jackson took for his afternoon talk. This was interesting and practical, covering his method of administration of the dye and interpretation of plates. This method is a valuable adjunct to medical science. Early application to suspected gall bladder disease should bring about much earlier correction of chronic trouble, and avoid the pathology, caused to other organs of digestion, and the resulting failure of corrective methods used too late, should be cut to a minimum.

"Acute Abdominal Conditions," F. C. Warnshuis.

This talk presented from a surgical viewpoint covered the field of acute abdominal surgery in general. No attempt was made because of the wide scope of the subject to deal with particulars, but generalizations of the subject with a plea for early surgical intervention when necessary was made. The careful examination and the necessity for close attention to the patient's history and the order of appearance of symptoms were points especially stressed.

"Uterine Cervix," was Dr. Brown's paper for the afternoon. The shortness of time and the stopping of discussion let Dr. Brown off easy, as several of his assertions were radical and interesting. He also gave a very clear explanation of Sturmdorf's method and technic of trachelorraphy.

"Birth Injuries," by Dr. Gordon, was another concise and interesting paper dealing more particularly with intracranial injuries and their treatment.

"Fractures," by Dr. Warnshuis. This paper, like his previous one, was a general summary of the methods and treatments. The increasing number of automobile injuries makes the methods of dealing with fractures of increasing importance. It was well put and interesting.

This finished the program for the day. It was well attended, very interesting, and of value to all that heard it. It carries out the program as planned by the Berrien County Society. Each month this Society has outside speakers who are specialists, give papers on their specialty. These are then discussed by the local men, interested and practising the same specialty.

The Berrien County Society wishes to publicly thank Dr. Warnshuis and Dr. Boys, councilor for this district, for their efforts in behalf of the district in arranging this program, and also to express our appreciation and thanks to the men who gave the paper, for their interest, clarity and general usefulness, and also the sacrifice of their personal interests in making the trip here.

Every County in the district was represented. A large group from Van Buren, Cass, and Kalamazoo; one from St. Joe County, besides the Berrien County members, were present.

W. C. Ellet.

Sec'y. Berrien County Medical Society.

PHYSICIANS ATTENDING THE FOURTH DISTRICT POST GRADUATE CONFERENCE

Allen, H. C., St. Joe.  
Rosenberry, A. A., Benton Harbor.  
Becker, L. D., South Haven.  
Goodrich, A. L., South Haven.

Hudnutt, O. D., Otsego.  
Medill, W. C., Plainwell.  
Gordon, T. D., Grand Rapids.  
Pepin, Henry A., Pullman.  
Merritt, C. W., St. Joe.  
McDermott, J. J., St. Joe.  
Rinkenberger, A. C., Benton Harbor.  
Donna, P. J., Coloma.  
Green, Geo. W., Dowagiac.  
Herring, N. A., Niles.  
Witt, E. J., St. Joe.  
Kerry, F. M., Benton Harbor.  
Loupee, F. M., Dowagiac.  
Bope, W. P., Decatur.  
Jackson, J. B., Kalamazoo.  
Jenks, I. C., Centerville.  
Boys, C. E., Kalamazoo.  
Henderson, Abbe, Niles.  
Henderson, Robert, Niles.  
Jones, J. H., Dowagiac.  
Dunnington, R. N., Benton Harbor.  
Crowell, F. B., Lawrence.  
Herkimer, Dowagiac.  
Lyman, W. R., Dowagiac.  
Mapoell, J. F., Dowagiac.  
Penoyer, F. C., South Haven.  
Strayer, J. C., Buchanan.  
Snowden, R. H., Buchanan.  
Howard, R. B., Benton Harbor.  
Helkie, W. L., Three Oaks.  
Mitchell, C. A., Benton Harbor.  
Stewart, John D., Hartford.  
Giffin, J. R., Bangor.  
Brown, G. Van Amber, Detroit.  
Sowers, C. N., Benton Harbor.  
Spawr, C. V., Benton Harbor.  
Burrell, H. J., Benton Harbor.  
Corey, A. W., New Troy.  
Ellet, W. C., Benton Harbor.  
Giddings, B. D., Niles.  
Schwendener, H. A., St. Joe.  
Van Noppen, D— A. Niles.

HOSPITAL STAFF MEETINGS

From time to time over a period of years we commented upon the tendency toward a multiplicity of medical organizations that encroach upon the work of the County Society. Similar comment has been directed toward hospital staff meetings that have within the past few years embraced program features that belong to the County Society. We present our members with the following extract from Secretary West's annual report submitted at the A. M. A. Minneapolis meeting and action taken in reference thereto.

MUNICIPALITY OF MEDICAL ORGANIZATIONS

The fundamental purpose of medical organization in the United States, as defined in the constitutions and by-laws of the American Medical Association and its constituent and component societies, is "to promote the science and art of medicine and the betterment of public health." There was a time when there were few organizations other than this Association, its constituent state associations and their component county societies engaged in those activities contemplated in our scheme of organization and work. For some years, however, there has been a persistent tendency toward the creation and operation of independent scientific societies until now there are

many of them in the field, some highly specialized, some apparently duplicating the work of our own societies or actually attempting to substitute for them. Besides these there are many others not strictly scientific or frankly nonscientific in character whose programs of work and statements of objectives closely parallel those of the various units of our own organization. The members of all these are, for the most part, members of our component county societies. Still other groups have come into being, and their number is not inconsiderable, made up of physicians and laymen and directed, in many instances, by the lay element in their membership. Present-day requirements of various organizations and agencies, established by legislative enactment or voluntarily, having to do with hospitals have resulted in the conversion of the staffs of these institutions into scientific societies. The demands, in time and effort, made on our own members who are affiliated with all of these independent bodies are so great that there is serious question as to whether the medical profession and the public are not actually suffering from the effects of overorganization due to the existence of a veritable multitude of societies, clubs, institutes, colleges, convocations, congresses, conferences, assemblies and associations. Of course, many of these are doing good work, some are helpfully supplemental to regularly organized medical societies, and it is probably true that a few of them are doing what our own societies cannot really do. It is possible, however, if not definitely a proved fact, that some are merely intruding, duplicating and interfering, whether designedly or otherwise.

Overorganization of a profession into official and independent groups will surely lead to division of loyalty, dissipation of effort, wasteful expenditures, inefficiency and obstruction to scientific progress. Overorganization of the medical profession cannot be effected except with the consent and through the participation of the individual physician. He, as a free agent, can and will decide where his loyalty will be given, where his contribution will be made, and how and where his effort and his co-operation will be offered; only he, with his kind, can produce and maintain purposeful and efficient organization through which the work that is given the medical profession to do can be well done.

The American Medical Association is numerically stronger than ever before; we fondly hope and sincerely believe that as a national society it is discharging most of its duties and responsibilities with reasonable efficiency. Our constituent state associations are, beyond any question, stronger and more efficient than they have ever been. There is reason to believe that some component county societies, among them those that formerly were both strong and efficient, have felt the deleterious effects of the existence of too many organized groups, too many meetings, and the division of effort and weakening of allegiance that can hardly fail to develop under such circumstances. These county societies should be given such stimulation and assistance as can be provided, but can best be revivified and brought back to efficiency through their own effort and through the undivided support of their own members.

#### The following was the action taken:

Your reference committee suggests that the staff meetings of hospitals be devoted preferably to executive discussions of problems relating to hospital economics and records, and that members

of the American Medical Association make special efforts to stimulate interest in and the development of scientific medicine in the regularly organized county medical societies.

We urge anew that our members, constituting these hospital staffs, re-affirm their loyalty to the County Society and cause staff meetings to be concerned solely with economic and record problems.

*Beg Pardon:* This is the caption under which the Illinois State Medical Journal publishes our reply to their editorial in their May issue. It is needless to add that in the spirit of sincere fraternalism Michigan is happy to accede and trusts that Illinois has a clearer concept of organized activity in Michigan.

*Upper Peninsula Medical Society* holds its annual meeting in Newberry on August 1st and 2nd. A splendid two-day program is being arranged and merits a large attendance. Members of the lower peninsula are cordially invited.

*Our Annual Meeting:* Our 1928 Annual Meeting will be held in Detroit the week of September 24th. The preliminary program will appear in the August Journal. We urge that you commence planning to attend this annual session.

#### MONROE COUNTY

Monroe County Society held its April meeting April 19, 1928 at the Park Hotel, Monroe. Dinner was served at 6:30. Dr. C. D. Brooks, of Detroit, gave an interesting illustrated lecture on "The Surgery of Goitre Associated with Hyperthyroidism."

May meeting was held May 25. Dr. Fred Douglas, Toledo, spoke on "Good Results of Gall Bladder Tract Surgery." Dr. L. A. Levinson, Toledo, spoke on "Liver Function Tests and Gall Bladder Disease." Both addresses were excellent.

Florence Ames, M. D., Secretary.

#### SHIAWASSEE COUNTY

The June meeting of Shiawassee County Medical Society was held at Memorial Hospital, Owosso, on the evening of June 5th with many doctors present.

Dr. James Pierce, Associate Professor of Obstetrics and Gynecology in the University of Michigan, was the speaker of the evening and gave a very instructive practical address on the common problems as met with by the general practitioner. Beginning with vomiting or pregnancy, he indicated the newer conceptions of the various pathological conditions and their treatment. Some interesting case histories were referred to as illustrating certain points made.

The discussion which followed was of interest, and freely participated in.

Recommendation for honorary membership in the State Society for Dr. A. M. Hume of Owosso, a past president of the State Society, was voted by the Society.

Honorary membership in the County Society

was voted to Dr. C. McCormick, also of Owosso. The latter has been in continuous practice since 1872, which was the year of his graduation from the medical department of the University of Michigan.

No more meetings will be held till September.  
W. E. Ward, Secretary.

### HOUGHTON COUNTY

Regular monthly meeting of Houghton County Medical Society held at Calumet, Tuesday, June 4, at 8:30 p. m. Twenty-two members were present. Meeting called to order by President King. After regular business was disposed of the scientific program was presented. Dr. G. C. Stewart of Hancock read a paper on "Pernicious Anemia," and presented a case of a young boy, 14 years old, whose present R. C. were below a million. Dr. Stewart stated that he contemplated vigorous use of Liver Extracts, and hoped to present a patient much improved at our next meeting.

Paper was interestingly discussed. Society adjourned to lunch.

T. P. Wickliffe, Secretary.

### GENESEE COUNTY

Genesee County Medical meeting held at Hotel Dresden, May 2, 1928.

President McKenna in the chair. Minutes of the last meeting read and approved.

Dr. Robert MacArthur gave a very comprehensive talk on "The treatment of Gonorrhea and Its Complications by Diathermy."

Meeting adjourned.

Joint meeting of the Genesee County Medical and Dental Societies was held at Hotel Dresden, May 29, 1928.

President-elect Dr. J. C. Benson presiding. Regular business was dispensed with.

Dr. R. W. Bunting of the University of Michigan Dental School gave a talk on "Dental Caries."

Meeting adjourned.

M. S. Chambers, Secretary.

### MACOMB COUNTY

Following is a summary of the program of the Macomb County Medical Society up to and including June of this year, at which time we suspend our meetings until September.

January meeting—Address by Dr. L. Laird: Eye, Ear, Nose and Throat.

February meeting—Address by Dr. D. Siefel: Illustrated Lecture on Orthopaedics.

March meeting—Address by Dr. Loren Shaffer: Treatment of Syphilis.

April meeting—Address by Dr. G. C. Burr: Tuberculosis of Kidney, illustrated by motion pictures.

May meeting—Motion picture presentation—How Biological Products are made—by Courtesy, Parke Davis Co.

June meeting—Business Session.

I might also state that at the February meeting the following resolution was adopted.

"Resolved that the Macomb County Medical Society goes on record at this time as being opposed to the establishment of a County Health Unit as outlined in Act 306 of the Public Acts of 1927."

Our next meeting will take place at first Monday in September.

J. N. Schnet, M. D., Secretary.

### LENAWEE COUNTY

The regular meeting for the month of May was held in Hudson, Thursday the 24th.

The meeting began in the afternoon with an inspection of the new Thorn Memorial Hospital. The city of Hudson is to be congratulated for having such a fine institution as they have provided for the treatment of its citizens.

The Scientific meeting was held at the Palmer Hotel restaurant beginning with the usual dinner at 7 p. m.

Hillsdale County Medical Society was represented by five members and Fulton County Medical Society of Ohio was represented by their Secretary, Dr. C. E. Patterson, of Fayette.

The speaker of the evening was Dr. E. G. Martin, of Detroit, president of the Wayne County Medical Society. Dr. Martin gave a very interesting talk on pathological conditions found in the anus and rectum and also gave a few minutes to the use of local anaesthesia in surgical procedures of the ano-rectal regions. He divided his talk into three main parts; namely, the methods of examination of the anus and rectum, with a demonstration of a few diagnostic instruments, the diagnosis of a few of the more common diseases, and their treatment.

A report was given of the Secretary's Conference and the application for reinstatement of Dr. B. H. Growt was read and acted upon, favorably.

Announcement was made of the picnic to be held in August jointly with Monroe County Society. There will be an archery contest, golf tournament, baseball game, 22-rifle sharpshooters match, plenty of fun and no work for the Ladies Auxiliary of the two counties. The final date and plans will be announced in the August number of the Journal.

R. G. B. Marsh, Secretary.

### EATON COUNTY

We were greatly disappointed in the report of Councilor R. C. Stone as regards the Eaton County Medical Society. Instead of being "not active" we had eleven meetings during the year of 1927 (one more than any other County Society in our district).

During the year we were addressed by the following men: Dr. Sleight and Dr. Knapp of Battle Creek, Dr. W. J. Cassidy of Detroit spoke on "The Surgical Abdomen", Dr. Guy L. Kiefer on "Immunation Against Scarlet Fever", Dr. C. C. Young of the State Board of Health on Cutaneous tests for Asthma, the Dick test, and the Schick test. Dr. C. A. Stimson on Rectal Pathology due to Extra-rectal causes, Dr. A. M. Barrett of the State Psychopathic Hospital at Ann Arbor on Present Day Problems in Psychiatry, Dr. Bauch of Lansing gave an interesting talk on his impressions of European Clinics.

At a joint meeting with our wives Dr. Caroline Bartlett Crane gave us a fine talk on the "Doctor's Wife", and Dean King of Olivet College addressed us on the "Tragedy of the Educated Man." Dr. Alter of Jackson addressed us on the "Treatment of Diabetes."

You can see that we had a very active year during 1927.

So far this year we have had very interesting meetings. At our January meeting we were addressed by Dr. John Sanders of Lansing who chose as his topic "Fatigue in Children." Dr. Don Guswold of Deputy State Health Commission also spoke on "Relation of the Physician to Public Health Work," Dr. Alex M. Can spoke of

the State Health Department and also the County Health Unit.

At our February meeting Dr. Poole spoke on the Administration of Toxin Antitoxin to Children in Rural Communities. Dr. Fred P. Currier of Grand Rapids spoke on the subject of "Headaches", and Dr. Merrill Wells of Grand Rapids on "The Duodenum in Upper Abdominal Distress."

Our March meeting was held jointly with the Ingham County Medical Society at which time Dr. Emerson Vreeland addressed us on the "Diagnosis of Cancer in the Gastro Intestinal Tract." Our April meeting was also held jointly with the Ingham County Society.

We are planning on you for our June meeting which will be held at the Charlotte Hotel Thursday, June 28, 1928, at 6:45 p. m. Will try to have a good attendance for you and hope you will speak to us on the subject of "Our State Society."

Carleton Dean, M. D., Secretary.

### KENT COUNTY

The activities of the Kent County Medical Society since our last report in April, have been many and varied.

Dr. Clifford C. Gruelee, Eminent Pediatrician of Chicago and head of the Pediatric Department at Rush Medical School, was principal speaker on the Scientific program of April 11, 1928, and gave a very splendid paper on "Intraperitoneal Medication in Infancy."

The evening of April 25, 1928 was devoted to the presentation of a subject always of great scientific interest in this district, namely: "Iodine Hyperthyroidism", which was very ably handled by Dr. Arnold S. Jackson, Chief of the Jackson Clinic at Madison, Wis.

The various committees, standing and special, report considerable progress. Dr. H. S. Collisi, chairman of the committee appointed to co-operate with the City Commission in drafting a New Milk Ordinance, reported his committee had collected data from 25 different cities in the United States and Dominion of Canada, and were in a position to be of real service to the City Commission in assuring the City of Grand Rapids a safe and sanitary milk supply.

Dr. Merrill Wells and his Public Health Education Committee were responsible for the inauguration in this community of Health Examination Week, held May 21 to 26, inclusive. The Committee adopted as their slogan, "A thorough physical examination for every individual once a year." Private patients were urged to present themselves at the office of their individual family physicians, and for those deserving individuals who were unable to pay for private service, the facilities of the Out-Patient Departments of Blodgett Memorial, Butterworth, and St. Mary's Hospitals were generously donated. The individual doctor was urged to make the examination a thorough one, and as an aid, special examination forms were provided by the committee. The week was featured particularly by a general public meeting held in the Press Hall the evening of May 21, at which, in addition to short talks on general health topics by Doctors Gordon, Baker, and Moore, Professor W. D. Henderson of Ann Arbor, Director of the University of Michigan Extension Division, and Secretary of the Joint Committee on Public Health Education, was the principal speaker. Professor Henderson's address titled, "Science and Superstition" was very excellent, and well received.

Dr. Joseph L. Miller of Chicago, Professor of

Clinical Medicine at the University of Chicago, was the principal speaker at the dinner meeting at the Pantlind Hotel, May 23, and took for his subject, "The Diseases of Ancient Man." This meeting, well attended not only by our local members, but also by many doctors from the surrounding County Societies, was a splendid success, the subject of Dr. Miller being novel as well as intensely interesting, and illustrated with lantern slides.

This ambitious program inaugurated this year, will provide for the Public Health Education Committee annually, for years to come, plenty of work to do, for it is the intention of our Society to continue our efforts along this line. The success of the pioneer effort was due in no little measure, not only to the fine co-operation of the hospitals of Grand Rapids, but to the generous publicity given daily by our local newspapers.

J. M. Whalen, M. D., Secretary.

### CALHOUN COUNTY

Meeting held May 1, 1928.

Following a complimentary dinner in the dining room of the Kellogg company, the meeting was called to order in the Social Hall.

Dr. R. H. Harris, the president, presided. The secretary's report as printed in the last Bulletin was accepted as printed. The name of Dr. Norman Amos, having been approved by the trustees for membership in the Society, was formally accepted by acclamation.

The following bills were read and ordered paid:

Phoenix Printing Co.	\$10.25
Vandervoort, Florist	7.50
Secretary's Office Expense	4.65

The scientific program was the next order of business.

Dr. G. C. Penberthy, of Detroit, discussed the subject of "Rehabilitation in Industrial Surgery." He stated that the treatment of the injured working man begins as soon as the case comes to the hospital, and may continue long after leaving the hospital, or until function is completely restored. In many cases the co-operation of the employer is necessary, in order to place the injured man where he can do light work while developing and training his weakened muscles and joints back into condition. He stresses the value of physical therapy in restoring function to limbs after injury.

Dr. Jno. C. Coulter, of Chicago, was next introduced and spoke on the "Uses and Abuses of Physio-therapy." Physical therapy includes thermal, mechanical and chemical modalities. He was not in favor of the distribution of physical appliances to the public, as the use of physical therapy should only be in the hands of experienced operators.

Dr. Coulter showed two reels of films showing the various methods of administering physical therapy, and showing progress of cases.

He stated that the Carbon Arc Lamp was one of the best methods of administering light, but that the lamps with amperage much below 75 amperes were not much good.

Physio-therapy is the patent medicine of today, and is being exploited by all kinds of quacks and vendors.

The Ultra Violet light has definite but limited uses. It is especially indicated in rickets, tetany, spasmophilia and extra-pulmonary tuberculosis as well as leg ulcers, acne, psoriasis, and in some anemias.

Discussion—The papers were discussed by Doc-

tors Roth, Elliott, Brainard, and Gorsline, Giddings, Stone, Haughey and Olsen.

A vote of thanks was given to the Kellogg company for the generous entertainment, and to the two essayists for their papers.

Meeting adjourned.

Members present, 62.

Visitors—Dr. Cornell and Dr. McMannus.

H. P. Knapp, Secretary.

### OAKLAND COUNTY

A meeting of the Society was held at 6:30 p. m., Thursday evening, June 21, at the Board of Commerce, Pontiac. Dinner was served.

F. F. Blicke, Ph. D., Assistant Professor of Pharmaceutical Chemistry, University of Michigan, spoke to the Society on "Synthetic Drugs."

The druggists of Oakland County had a cordial invitation to attend this meeting.

At our last meeting, the Society had the pleasure of entertaining Dr. Herbert E. Randall of Flint, president of the Michigan State Medical Society.

Dr. A. W. Newitt, Birmingham, recently completed a course in pediatrics at Washington University, St. Louis, Mo.

Dr. and Mrs. Robert H. Baker left Pontiac on June 12, for Seattle, Washington, where they will attend the Kiwanis International Convention.

Dr. H. S. Chapman has returned to Pontiac after spending the winter in California. He has resumed the practice of golf.

An excerpt from the Principles of Medical Ethics:

Article 3—Duties of Physician in Consultations.

*Conciet of Opinion*—Section 7. Should the attending physician and the consultant find it impossible to agree in their view of a case another consultant should be called to the conference or the first consultant should withdraw. However, since the consultant was employed by the patient in order that his opinion might be obtained, he should be permitted to state the result of his study of the case to the patient, or his next friend in the presence of the physician in charge.

*Consultant and Attendant*—Section 8. When a physician has attended a case as a consultant, he should not become the attendant of the patient during that illness except with the consent of the physician who was in charge at the time of the consultation.

Dr. Frank B. Gerls, Pontiac, is taking post-graduate work at the Children's Memorial Hospital, Chicago, Ill.

Dr. I. C. Prevette, Pontiac, has enrolled at Washington University, St. Louis, Mo., where he is taking courses in obstetrics and gynecology.

Dr. Campbell Harvey, Pontiac, is attending the annual meeting of the American Medical Association, at Minneapolis, Minn.

Doctors Howlett and Farnham are occupying new offices in the Huron building, West Huron street, Pontiac.

The next annual session of the Michigan State Medical Society will be held in Detroit in September.

C. A. Neafie, M. D., Secretary.

Dr. Angus McLean of Detroit, who earned exceptional recognition for his services during the World War, addressed the Oakland County Medical Society at its regular meeting in Birmingham. Dr. McLean reviewed the history of war in regard to death and disability.

"There have been 1,300 wars that history and legend have recorded," he said, "and only about a dozen of them have ever settled anything. The wars have left 250,000,000 widows and several billion orphans. There are at present about two billion persons living on this earth, and about seven billion have been killed in wars of the past."

Dr. McLean pointed out that one of the regrettable facts of war was that the nation's finest men, mentally and physically, fought and were killed while those physically deficient remained home and eventually became fathers of much of the next generation.

The cost of the World War to the United States, he claimed, was \$1,000,000 an hour 24 hours a day for 24 months. The cost of the war as distributed among all participating nations was given as \$9,000,000 an hour.

"War," claimed Dr. McLean, "is the world's most expensive luxury. Only a rich and prosperous nation can afford it."

Dr. N. T. Shaw, Birmingham, presided at the meeting and Dr. Herbert E. Randall, of Flint, formerly of Birmingham, and President of the State Medical Society, talked informally. He told of the objects of the State Society and related some of its progress recently. He said that the society is essentially an educational institution, both for its members and the public.

Following the address there was a presentation of educational films by Mrs. Zelphia B. Hale, executive secretary of the Oakland County Tuberculosis association. The films were entitled "Let Your Doctor Decide," and "Delay Is Dangerous," and stressed the importance of the early diagnosis of tuberculosis.

### KALAMAZOO COUNTY

The regular meeting of the Kalamazoo Academy of Medicine was held May 22, 1928 in the Academy Rooms. The usual dinner was served preceding the evening meeting.

Meeting called to order by the President, Dr. W. E. Shackleton.

The minutes of the previous meeting as printed in the bulletin were approved.

Dr. Andrews of the committee appointed several months ago to investigate the clinics of the city of Kalamazoo read the following report.

"An effort has been made by your committee to suggest some changes in the workings of the cities' clinics and the management of its charity that will be constructive. A study has been made of the present conditions and with the welfare of the worthy poor, the present management of our city charities' organizations, and the physicians, we have endeavored to make some suggestions that will be workable, constructive, and steer us far away from the rock of State Medicine as is possible.

"If the physicians do not take interest enough in the future of the practice of medicine to head off breakers, the public, with little consideration of our profession, will pursue the same course they have been taking until we will be powerless to control our destinies.

The success of any plan to adjust the situation rests entirely on the wholehearted support of all those who practice medicine; but by united effort we can, without disturbing any existing agencies, correct some of our errors and ward off any more serious ones.

"A questionnaire was given to many of our citizens and sent to the Commissioners of Health of many of our cities. The following two questions were asked:

"First. Should the Health Department vaccinate the children of the well-to-do free of charge?

"We received 26 answers to this. Seven were in the affirmative, nineteen negative. Your committee is of the opinion that in the interest of public safety, all individuals should be vaccinated, an effort being made in all cases to have it done by the family physician.

"Second. Should the children of the well-to-do be cared for at the child welfare clinics supported by funds from the civic chest? Twenty-one answers were received. Three were in the affirmative, eighteen were negative.

"It is the opinion of the committee that in no case should the child of any individual able to pay be treated or repeatedly examined at such a clinic.

"It would seem necessary that at the start all individuals applying for free medical aid should be definitely classified. After careful consideration the committee recommends the following classification, which is simple, inclusive, and easy of accomplishment.

"A. Permanently indigent.

"B. Temporarily indigent until given date.

"C. Worthy of care on presentation of security.

"D. All persons unworthy of free care.

"It is recommended that the investigation of all cases be made by an individual, responsible to the city government, and that this investigation be assisted in every way possible by a committee of physicians appointed by the Academy of Medicine, following a plan now in operation in the city of Chicago. This official shall issue a card to each individual applying for charity.

"It is recommended that an Infants Clinic be held at some central station once a week for Classes A and B, and that general education program for mothers and babies be held at intervals of six months, and that all lay organizations be assured that the Academy of Medicine will cooperate to the fullest extent along the lines of the present pre-school clinic.

"In the management of private pay patients in the contagious disease hospital, we feel that the treatment of such patients should remain in the hands of the physician sending in the case, or such patient shall pay the hospital a reasonable fee for medical service.

"It is the feeling that the Public Health nurses should be warned against diagnosing and prescribing. It is recommended that in no case shall quarantine be lifted by a nurse without the sanction of the attending physician.

"It is recommended that the custom henceforth be, that the physician shall render a fee for his services for all cases whether treatment is rendered in free beds or not.

"It is recommended, that persons presenting themselves to the city physician for treatment without registration card shall be charged the usual fee for such services, which charge may be refunded or cancelled upon presentation of card.

"May 22, 1925.

"Signed L. J. Crumb, Chairman

"F. T. Andrews

"R. J. Hubbell

"A. H. Rockwell

"L. E. Westcott."

Dr. Crum read several letters from the Mayors and Health Officers of other cities who were sent questionnaires regarding services rendered in such clinics.

The report was also discussed by Doctors Collins, Wescott and A. H. Rockwell.

Dr. Stewart moved that this report be laid on the table until the next meeting. Seconded; Carried.

There were no other committee reports.

Dr. Goodrich moved, that the business that concerns only those members of the city of Kalamazoo rather than the Academy as a whole should follow the scientific program. Seconded; Carried.

Dr. James G. Carr, Associate Professor of Internal Medicine, Northwestern University gave a very practical talk on the care of patients with cardiac failure. He detailed particularly the care of those with congestive type of failure and discussed his method of giving digitalis.

Discussion on this talk was opened by Doctors Stewart and Westcott. General discussion followed.

A general vote of thanks was given Dr. Carr and he was assured a return trip sometime in the near future.

Meeting adjourned.

## BOOK REVIEWS AND MISCELLANY

Offering Suggestions and Recommendations

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1927.—Cloth. Price, postpaid, \$1.00. Pp. 103. Chicago: American Medical Association, 1928.

The Council on Pharmacy and Chemistry of the American Medical Association annually publishes the reports which tell the reasons for non-acceptance of those products which during the year it has found unworthy of recognition. Some of these reports have been published in abstract in The Journal; all are contained in full in the volume which is the subject of the present review. The physician who has learned to ask the manufacturer's "detail" man, "If it is not in New and Nonofficial Remedies, why is it not?" will find here the answer which that personage will no doubt hesitate to give him. The book shows the

practical working out of the principles which the Council's experience has shown to be essential in its fight for rationality in the field of proprietary medicines.

Among the products reported as unacceptable are: Bismogenol, which is bismuth salicylate under a fancy name; Desitin, a complex mixture from Germany; Hexol, a pine oil preparation for which unwarranted claims are made; Warnink's Advocate, a mixture of potassium arsenite and alcohol in the form of an egg nog marketed without emphasis of the arsenic content in a way likely to lead to harmful and ill advised use by the public; and Solvo Aspirin, another futile attempt to market a solution containing acetylsalicylic acid rendered soluble by addition of sodium bicarbonate.

A glance at the index shows, however, that these reports do not always deal with articles that have been actually rejected by the Council. Preliminary reports are frequently made on new products which appear promising but for which there is not yet sufficient evidence to warrant inclusion in *New and Nonofficial Remedies*. Included in this group this year are: a report on Blueberry Leaf Extract, which gives promise of being useful in the treatment of diabetes; a report on "Plasmoquin," a substitute for quinine in the treatment of malaria brought out in Germany but thus far withheld from the market by the American agent; a report on "Alpha-Lobeline," which has been the subject of many conflicting estimates but which lacks conclusive evidence demonstrating its usefulness; two reports on Ephedrine, announcing standards, evaluating therapeutic usefulness, and finally announcing the acceptability of the drug and of two of its salts; a report on Bismarsen, a new derivative of arsphenamine containing bismuth and proposed for use in the treatment of syphilis.

Of much current interest is the reprint of the report of Dr. R. A. Hatcher reviewing the literature on the Gwathmey method of colonic anesthesia and evaluating the present standing and usefulness of this method. This report is an outstanding example of the way in which the Council in addition to its other activities aims to contribute to the advance of general medical knowledge.

**NEW AND NONOFFICIAL REMEDIES.** 1928—Containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1928. Cloth. Price, postpaid, \$1.50. Pp. 489. *XLIX*. Chicago. American Medical Association.

This book is the work of a distinguished organization, the Council on Pharmacy and Chemistry of the American Medical Association, which some twenty years ago was founded to clean out the Augean stables of proprietary medicines. The Council's plan was and has been the publication annually of a book containing descriptions of those unofficial preparations which after careful investigation have been found worthy of recognition and consideration by the medical profession. Such has been the devotion of the Council members, who serve without remuneration, and such the recognition achieved by their work that today the book describes all the new proprietary products which have a scientific base and which give promise of therapeutic usefulness. The physician who best safeguards his own interests as well as those of his patient will give no consideration to any proprietary medicinal agent which is not listed in *New and Nonofficial Remedies*.

The book is conveniently arranged for reference: each preparation is classified, and each classification is preceded by an authoritative and up to date discussion of the composition, actions, uses, and dosage of the medicament involved. Annually the book is carefully scrutinized and revised to ensure its being in the forefront of medical progress. Products that have been admitted are re-examined at stated intervals to determine if they are keeping their promise of therapeutic usefulness; and new products are admitted as they are found acceptable.

Among the more important revisions this year are: the rewriting or recasting of the chapters on Medicinal Foods, Insulin, Arsenic Compounds, and Iron and Iron Compounds; revision of the chapters on Ovary and Parathyroid to make them conform to the results of recent research; and revision of

the names and standards of the acriflavine dyes. A noteworthy omission is that of all parathyroid gland preparations designed for oral administration, their lack of efficacy by this route having been conclusively demonstrated.

The following are some of the products which have been recognized during the past year and which are now included in the book: Neonal, a new barbital compound; Mesurol, a bismuth preparation for use in the treatment of syphilis; Bro-mural, once omitted from the book, but now reinstated as a result of the manufacturer's limitation of therapeutic claims; a number of standardized cod liver oils; Ephedrine, an alkaloid with epinephrine-like properties, and its hydrochloride and sulphate salts; Amiodoxyl benzoate, the ammonium salt of orthoiodoxybenzoic acid, proposed for treatment of arthritis; *Crotalus Antitoxin*, an antishakebeite serum; several brands of *erysipelas streptococcus antitoxin*; and *Anaerobic Antitoxin*, and antitoxic serum for use against gas gangrene.

**A REPORT OF THE JOINT COMMITTEE ON HEALTH PROBLEMS IN EDUCATION OF THE NATIONAL EDUCATION ASSOCIATION AND THE AMERICAN MEDICAL ASSOCIATION**—Published by the National Society for the Prevention of Blindness; second edition; revised; sixty pages; illustrated. Available at cost, National Education Association, 1201 Sixteenth Street, N. W., Washington, D. C., American Medical Association, 535 North Dearborn Street, Chicago, Ill., or National Society for the Prevention of Blindness, 370 Seventh Avenue, New York, N. Y. Price 35c net.

This report, prepared under the editorship of Dr. Thomas D. Wood, Chairman of the Joint Committee, has the purpose of supplying teachers, school officials, and others concerned with vision problems as related to education, with information, advice and practical directions which will promote the conservation of vision of school children. The present edition includes an illustration of the Symbol E Chart and a Letter Chart, both drawn scientifically to Snellen scale, for use from a twenty-foot distance. All directions for the use of these charts in testing the vision are in line with the most modern approved practice of those now adequately safeguarding the eye health of school children. The new pages and illustrations discussing the technic of using the symbol chart with little children, by adapting it to a game of play, are most convincing evidence of its practical utility for use with young children as well as for older groups. The new chapter on Lighting the Schoolroom is sound in teaching and easily understood by nurses and teachers.

This booklet might well be in the hands of all doctors, nurses and teachers concerned with testing the vision of school children or with promoting eye hygiene.

**MEDICAL CLINICS OF NORTH AMERICA**—330 Pages, 89 illustrations; published monthly by W. B. Saunders Company, Philadelphia.

This number is entitled "The Mayo Clinic Number" May 1928. This series is well known and this number is up to its high standard. The beauty of this book is the clearness and conciseness with which the subjects are treated. One does not have to wade through a mass of words to get at the gist of what the writer is saying. One cannot in a brief review give any idea of the contents of the book; sufficient to say that it is up to the minute in surgery and medicine.—W. J. S.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In many cases, review notes will be promptly published shortly after acknowledgment of receipt has been made in this column.